

EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|--------------------|------------------|---------|------------------|
| L1 | 7031 | ("0564282").PN. or ((514/269) or (544/301) or (548/131) or (514/365) or (564/306) or (514/613) or (514/646)).CCLS. | US-PGPUB; USPAT | OR | OFF | 2008/01/31 17:22 |
| L2 | 204 | 1 and phenethylamine | US-PGPUB; USPAT | OR | OFF | 2008/01/31 17:23 |
| L3 | 7 | (matsuoka adj hiroharu.inv.) | US-PGPUB | OR | OFF | 2008/01/31 17:25 |
| L4 | 60 | (sato adj tsutomu.inv.) | US-PGPUB | OR | OFF | 2008/01/31 17:26 |
| L5 | 4 | (takahashi adj takakatsu.inv.) | US-PGPUB | OR | OFF | 2008/01/31 17:27 |
| L6 | 1316 | (kim adj dong.inv.) | US-PGPUB | OR | OFF | 2008/01/31 17:27 |
| L7 | 1478 | (kim adj dong ick.inv.) | US-PGPUB | OR | OFF | 2008/01/31 17:27 |
| L8 | 65 | (jung adj kyung.inv.) | US-PGPUB | OR | OFF | 2008/01/31 17:40 |
| L9 | 280 | (park adj chan.inv.) | US-PGPUB | OR | OFF | 2008/01/31 17:41 |

09890219

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(FILE 'HOME' ENTERED AT 14:11:35 ON 31 JAN 2008)

FILE 'REGISTRY' ENTERED AT 14:11:41 ON 31 JAN 2008

L1 STRUCTURE UPLOADED
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L3 0 S L2
L4 0 S L2 FULL
L5 STRUCTURE UPLOADED
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L27 27038 S L21 FULL

FILE 'HCAPLUS' ENTERED AT 14:37:33 ON 31 JAN 2008

L28 6665 S L27 AND PD < FEBRUARY 2000
L29 12 S L28 AND MATSUOKA, H?/AU

FILE 'REGISTRY' ENTERED AT 14:38:39 ON 31 JAN 2008

L30 1 S 89213-87-6/RN
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 SET NOTICE LOGIN DISPLAY
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FILE 'REGISTRY' ENTERED AT 14:39:38 ON 31 JAN 2008

 E 89213-87-6/RN
L31 1 S E3

FILE 'HCAPLUS' ENTERED AT 14:39:54 ON 31 JAN 2008

=> s l28 not l29

L32 6653 L28 NOT L29

=> s l32 and sato, t?/au

 24965 SATO, T?/AU

L33 14 L32 AND SATO, T?/AU

=> d l33, ibib abs fhitr, 1-14

Updated Search

L33 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:285563 HCAPLUS

DOCUMENT NUMBER: 133:84664

TITLE: Selective antagonism by naloxonazine of antinociception by Tyr-d-Arg-Phe- β -Ala, a novel dermorphin analogue with high affinity at μ -opioid receptors

AUTHOR(S): Sakurada, S.; Takeda, S.; Sato, T.; Hayashi, T.; Yuki, M.; Kutsuwa, M.; Tan-No, K.; Sakurada, C.; Kisara, K.; Sakurada, T.

CORPORATE SOURCE: Department of Physiology and Anatomy, Tohoku Pharmaceutical University, Aoba-ku, Sendai, Japan

SOURCE: European Journal of Pharmacology (2000), 395(2), 107-112

CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To examine the role of μ -opioid receptor subtypes, we assessed the antinociceptive effect of H-Tyr-d-Arg-Phe- β -Ala-OH (TAPA), an analog of dermorphin N-terminal peptide in mice, using the tail-flick test. Intracerebroventricularly (i.c.v.) or intrathecally (i.t.) injected TAPA produced potent antinociception with tail-flick as a thermal noxious stimulus. The selective μ l-opioid receptor antagonist, naloxonazine (35 mg/kg, s.c.), or the selective μ -opioid receptor antagonist, β -funaltrexamine, 24 h before testing antagonized the antinociceptive effect of i.t. or i.c.v. TAPA on the response to noxious stimuli. Pretreatment with β -funaltrexamine completely antagonized the antinociception by both i.c.v. and i.t. administered TAPA and [d-Ala², Me-Phe⁴, Gly(ol)⁵]enkephalin (DAMGO). Especially in the tail-flick test, pretreatment with naloxonazine produced a marked rightward displacement of the i.t. TAPA dose-response curve for antinociception. Though DAMGO is a highly selective μ -opioid receptor agonist, pretreatment with naloxonazine partially blocked the antinociceptive response to DAMGO after i.c.v., but not after i.t. injection. These results indicate that TAPA can act as a highly selective μ l-opioid receptor agonist (notable naloxonazine-sensitive receptor agonist) at not only the supraspinal level, but also the spinal level. These data also reveal different antinociceptive mechanisms for DAMGO and for TAPA.

IT 77614-16-5, Dermorphin

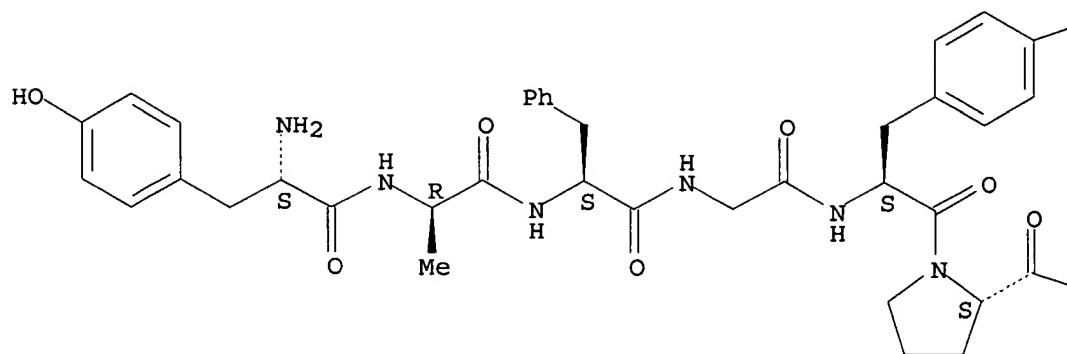
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(selective antagonism by naloxonazine of antinociception by Tyr-d-Arg-Phe- β -Ala, a novel dermorphin analog with high affinity at μ -opioid receptors)

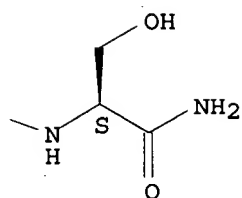
RN 77614-16-5 HCAPLUS

CN Dermorphin (CA INDEX NAME)

Absolute stereochemistry.



—OH



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:139868 HCAPLUS

DOCUMENT NUMBER: 130:196958

TITLE: Preparation of 3-tert-butyl-L-tyrosinamide-containing peptides and related compounds exhibiting a motilin receptor antagonism

INVENTOR(S): Kotake, Ken-ichiro; Kozono, Toshiro; Sato, Tsutomu; Takanashi, Hisanori

PATENT ASSIGNEE(S): Chugai Seiyaku Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 144 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

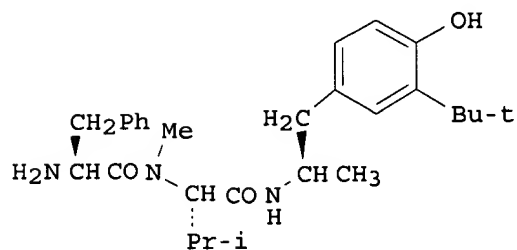
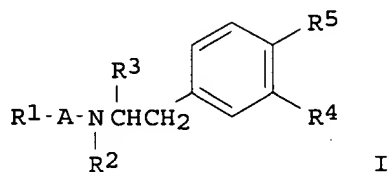
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| WO 9909053 | A1 | 19990225 | WO 1998-JP3627 | 19980814 <-- |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, | | | | |

DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

| | | | | |
|---|----|----------|------------------|--------------|
| TW 460478 | B | 20011021 | TW 1998-87113211 | 19980811 |
| CA 2301687 | A1 | 19990225 | CA 1998-2301687 | 19980814 <-- |
| AU 9886490 | A | 19990308 | AU 1998-86490 | 19980814 <-- |
| AU 741216 | B2 | 20011129 | | |
| JP 2000044595 | A | 20000215 | JP 1998-229586 | 19980814 |
| JP 3583928 | B2 | 20041104 | | |
| EP 1006122 | A1 | 20000607 | EP 1998-937826 | 19980814 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| US 6255285 | B1 | 20010703 | US 2000-485620 | 20000215 |
| PRIORITY APPLN. INFO.: | | | JP 1997-255879 | A 19970815 |
| | | | JP 1998-186802 | A 19980528 |
| | | | WO 1998-JP3627 | W 19980814 |

OTHER SOURCE(S): MARPAT 130:196958
GI



AB Phenethylamine derivs. represented by general formula [I; wherein A represents an amino acid or α -substituted amino acid residue; R1 represents R6CO, (un)substituted C2-7 linear or branched alkyl, C3-8 alkenyl, or C3-8 alkynyl; R2 represents hydrogen, C1-3 linear or branched alkyl; R3 represents COR7, (un)substituted C1-5 linear or branched alkyl, C2-5 alkenyl, or C2-5 alkynyl; R4 represents H, C1-6 linear or branched alkyl, C2-6 alkenyl, C2-6 alkynyl, etc.; R5 represents hydroxy or C1-4 n-alkoxy; R6 represents (un)substituted C1-6 linear or branched alkyl, C2-7 alkenyl, or C2-7 alkynyl, optionally benzene- or heterocyclic

ring-condensed C3-7 cycloalkyl; (un)substituted C6-12 aromatic ring, (un)substituted C3-12 (un)saturated heterocyclic ring, (un)substituted NH₂, (un)substituted linear or branched C1-5 alkoxy, C2-6 alkenyloxy, C2-6 alkynyloxy, etc.; and R₇ represents H, (un)substituted C1-5 linear or branched alkyl, C3-7 cycloalkyl, (un)substituted NH₂, OH, linear or branched alkyl C1-6 alkoxy, or C3-7 cycloalkyloxy] are prepared. Also claimed are a motilin receptor antagonist, an inhibitor of digestive tract motility, and a remedy for high blood motilin. They are also useful for the treatment of irritable bowel syndrome. Thus, N α -methyl-N-[2-(3-tert-butyl-4-hydroxyphenyl)-1-methylethyl]-L-valinamide was condensed with Boc-Phe-OH using HOBT and DIC in DMF at room temperature for 2.5 days followed by deprotection with CF₃CO₂H in CH₂Cl₂ to give the title compound (II). II in vitro showed IC₅₀ of 1.9 nM for inhibiting the binding of [¹²⁵I]motilin motilin receptor preparation from rabbit ileum mucous membrane.

IT 220806-34-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 3-tert-butyl-L-tyrosinamide-containing peptide compds. as motilin receptor antagonists, inhibitors of digestive tract motility, and remedy for high blood motilin)

RN 220806-34-8 HCAPLUS

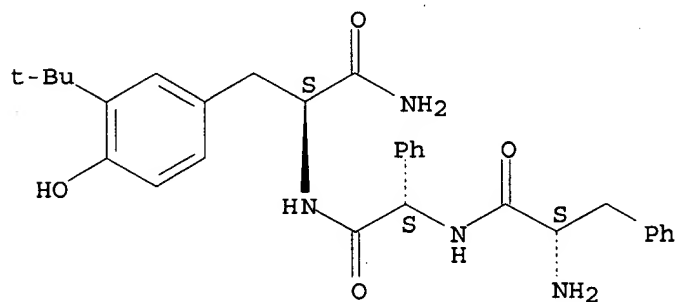
CN L-Tyrosinamide, L-phenylalanyl-(2S)-2-phenylglycyl-3-(1,1-dimethylethyl)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 220806-33-7

CMF C30 H36 N4 O4

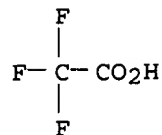
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



Updated Search

09890219

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:646501 HCAPLUS

DOCUMENT NUMBER: 121:246501

TITLE: Potent opioid activities of (D-Arg2) dermorphin analogs

AUTHOR(S): Sakurada, Shinobu; Sato, Takumi; Kisara, Kensuke

CORPORATE SOURCE: Tohoku Coll. Pharm., Sendai, 981, Japan

SOURCE: Annual Report of the Tohoku College of Pharmacy (1993), 40, 1-19

CODEN: TYKNAQ; ISSN: 0495-7342

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB Review, with 53 refs. A correlation between dermorphin structure and opioid activities was discussed based on a variety of analogs of (D-Arg2) dermorphin. The minimal structure of opioid activities was the tripeptide of N-terminus for (D-Arg2) dermorphin, although it was the tetrapeptide for dermorphin. Genetic anal. for dermorphin showed that D-Ala was replaced by a post-transformation process.

IT 96425-96-6D, (D-Arg2) dermorphin, analogs

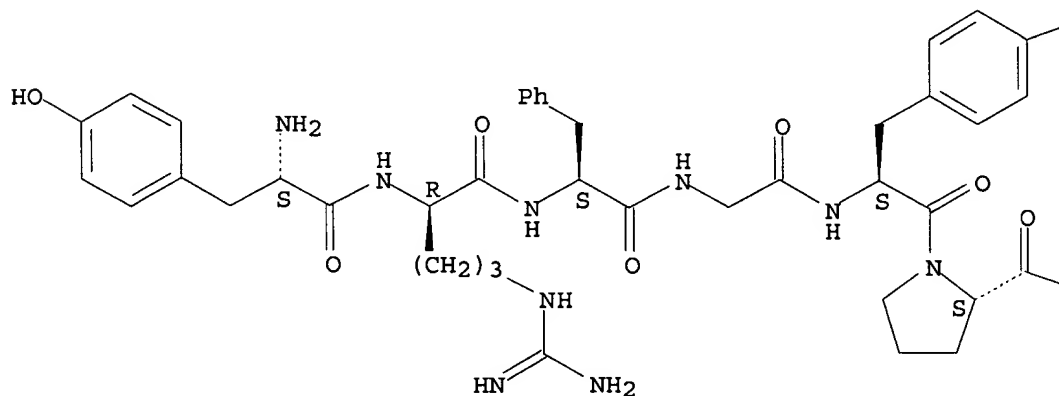
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (opioid activities of dermorphin analogs)

RN 96425-96-6 HCAPLUS

CN Dermorphin, 2-D-arginine- (9CI) (CA INDEX NAME)

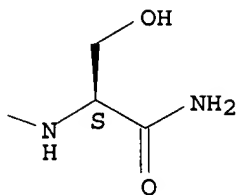
Absolute stereochemistry.

PAGE 1-A



Updated Search

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L33 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:228388 HCAPLUS

DOCUMENT NUMBER: 116:228388

TITLE: Comparison of opioid properties between
D-Arg-containing dipeptides and tetrapeptides

AUTHOR(S): Sato, Takumi; Sakurada, Shinobu; Sakurada,

Tsukasa; Kisara, Kensuke; Suzuki, Kenji

CORPORATE SOURCE: Dep. Pharm., Tohoku Coll. Pharm., Sendai, 981, Japan

SOURCE: Biochemical Pharmacology (1992), 43(4),
717-23

CODEN: BCPCA6; ISSN: 0006-2952

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Since the D-Arg-containing dipeptides, H-Tyr-D-Arg-OMe (TDA) and H-Tyr(Et)-D-Arg-OMe, and the D-Arg2-substituted dermorphin analogs, H-Tyr-D-Arg-Phe-Gly-OTe (TDAPG) and H-Tyr(Et)-D-Arg-Phe-Gly-OEt, gave different pharmacol. responses in vivo, opioid interaction and structure-activity relations have been investigated in vitro. In the isolated guinea pig ileum assay, the tetrapeptides were potently inhibitory, their activity markedly exceeding that of the dipeptides. In particular, the first tetrapeptide had twice the activity of morphine, whereas the potencies of the dipeptides were less than 5% that of morphine. Also, in the opioid receptor binding assay, tetrapeptides had a higher affinity than did the dipeptides. IC₅₀ values of tetrapeptides were 8.46 and 23.7 nM, resp., which were lower than that of morphine. Ethylation of the Tyr residue of TDA much increased the opioid activity, whereas similar modification of TDAPG greatly decreased opioid activity. All peptides used were extremely stable to aminopeptidase-M and carboxypeptidase-Y and had an inhibitory effect on enkephalin (EK)-degrading enzymes. Apparently, the effects of the tetrapeptides are due mainly to specific interaction with opioid receptors, whereas the dipeptides do not act specifically on the opioid receptors, but are involved in non-opioid mechanisms. The resistance to enzymes and inhibitory effect of the peptides used on the EK-degrading enzymes may also account for their potent and long-lasting opioid-like activities.

IT 77614-16-5, Dermorphin

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(opioid activity of, structure in relation to)

RN 77614-16-5 HCAPLUS

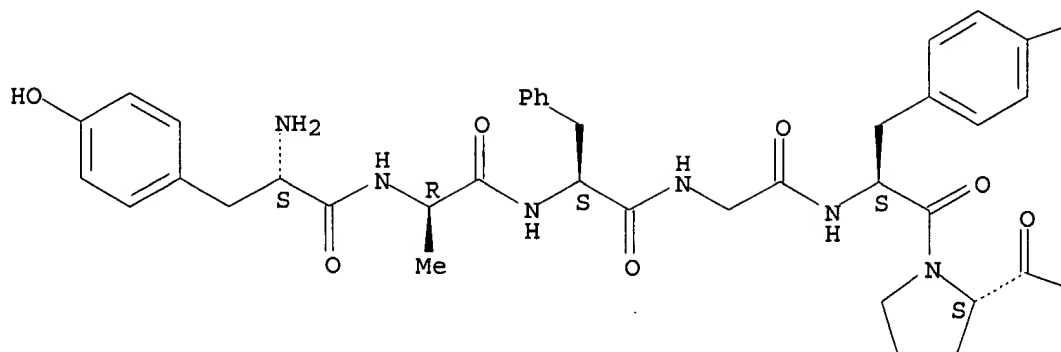
CN Dermorphin (CA INDEX NAME)

Updated Search

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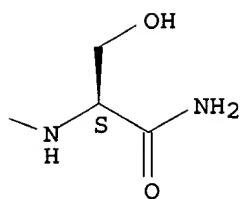
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—OH



L33 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:196672 HCAPLUS

DOCUMENT NUMBER: 112:196672

TITLE: Neutrophil-activating factors and its manufacture with serum-independent human cells

INVENTOR(S): Shionoya, Hiroshi; Koyanagi, Nozomi; Sato, Toshitaka; Kuwata, Manabu; Koide, Jun; Miyoshi, Isao

PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 01161000 | A | 19890623 | JP 1987-318328 | 19871216 <-- |

Updated Search

PRIORITY APPLN. INFO.:

JP 1987-318328

AB Antitumor and antibacterial neutrophil-activating factor (NAS) having a mol. weight of 25,000 and a partially defined amino acid sequence is manufactured

by cultivating serum-independent strain A-6 of cell line MT-2 that is established from human umbilical leukocytes. Thus, strain A-6 isolated from cell line MT-2 was cultivated in the serum-free RPMI-1640 medium. The medium was subsequently condensed, chromatographed, gel-filtered in presence of 6 M urea, and purified by the reverse-phased HPLC to obtain NAS. The effect of NAS on antitumor activity of neutrophils against mast cell tumor P815 was demonstrated.

IT 126738-60-1

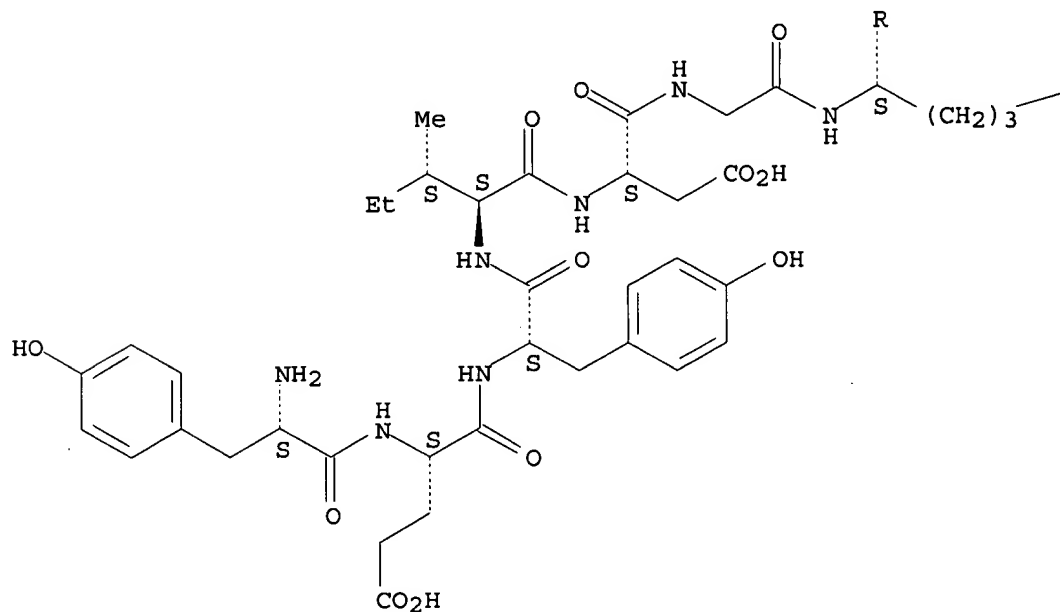
RL: BIOL (Biological study)

(amino acid sequence in neutrophil-activating factor)

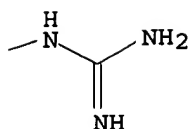
RN 126738-60-1 HCAPLUS

CN L-Serine, N-[N2-[N-[N-[N-[N-(N-L-tyrosyl-L- α -glutamyl)-L-tyrosyl]-L-isoleucyl]-L- α -aspartyl]glycyl]-L-arginyl]- (9CI) (CA INDEX NAME)

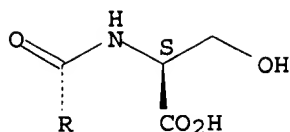
PAGE 1-A



PAGE 1-B



Updated Search



L33 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:108356 HCAPLUS

DOCUMENT NUMBER: 110:108356

TITLE: Comparison of the antinociceptive effects of new [D-Arg2]-dermorphin tetrapeptide analogs and morphine in mice

AUTHOR(S): Chaki, Kyoji; Sakurada, Shinobu; Sakurada, Tsukasa; Sato, Takumi; Kawamura, Shunsuke; Kisara, Kensuke; Watanabe, Hiromi; Suzuki, Kenji

CORPORATE SOURCE: Dep. Pharmacol., Tohoku Coll. Pharm., Sendai, 981, Japan

SOURCE: Pharmacology, Biochemistry and Behavior (1988), 31(2), 439-44

CODEN: PBBHAU; ISSN: 0091-3057

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The antinociceptive effects of synthetic dermorphin tetrapeptide analogs containing D-Arg in position 2, H-Tyr-D-Arg-Phe-Gly-NH₂ and H-Tyr-D-Arg-Phe-β-Ala-OH, were measured in mice by the tail-pressure test. The antinociceptive effect produced by intracerebroventricular (ICV), intrathecal (IT), and s.c. administration of either peptide was greater than that produced by morphine. Oral administration of the peptides showed approx. the same antinociceptive potency as morphine. In addition, the antinociceptive effect produced by s.c. or oral administration of either peptide was of longer duration than morphine. Pretreatment with naloxone resulted in early complete antagonism of the antinociceptive effects produced by ICV and IT administration of either peptide or morphine. Dose ratios (ICV/IT) or H-Tyr-D-Arg-Phe-Gly-NH₂ and H-Tyr-D-Arg-Phe-β-Ala-OH, which were calculated from the AD₅₀ (Antinociceptive Dose = 50% maximal possible effect) values, were 5.8 and 6.2, resp., whereas that of morphine was only 1.46. Thus, the mechanisms of the antinociceptive effects of [D-Arg2]-dermorphin tetrapeptide analogs apparently differ from those of morphine, and these peptides may possess higher affinities than does morphine for opioid receptors in the spinal cord.

IT 77614-16-5D, Dermorphin, analogs

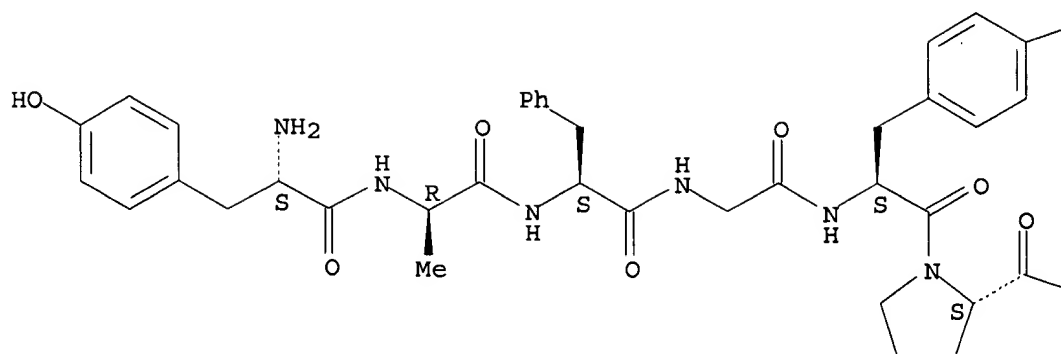
RL: BIOL (Biological study)

(antinociceptive activity of, administration route and structure in relation to)

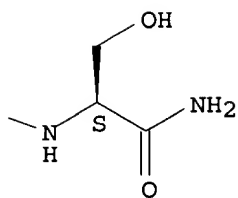
RN 77614-16-5 HCAPLUS

CN Dermorphin (CA INDEX NAME)

Absolute stereochemistry.



—OH



L33 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:16814 HCAPLUS

DOCUMENT NUMBER: 108:16814

TITLE: Production and characterization of monoclonal antibodies against amino-terminus of human α -atrial natriuretic polypeptide

AUTHOR(S): Naomi, Shojiro; Umeda, Teruhisa; Sato, Tatsuo ; Harada, Nobuyuki; Tominaga, Akira; Takatsu, Kiyoshi

CORPORATE SOURCE: Med. Sch., Kumamoto Univ., Kumamoto, 860, Japan

SOURCE: Hybridoma (1987), 6(4), 433-40

CODEN: HYBRDY; ISSN: 0272-457X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Monoclonal antibodies directed against human α -atrial natriuretic polypeptide (α -ANP; human, 1-28) were obtained by somatic cell fusion between P3-X63-Ag8.653 myeloma cells and spleen cells from a BALB/c mouse immunized with human α -ANP selectively coupled to keyhole limpet hemocyanin. From the anal. of polyclonal sera with respect to determinant specificity before the fusion, the strategy was primarily used to pick up monoclonal antibody specific for the N-terminal residues of human α -ANP. Screenings of antibodies in the hybridoma culture supernatants were performed by binding to iodinated synthetic human

α -ANP. Two stable clones producing anti-human α -ANP antibodies, designated 13A1 and 10B1, were obtained by the limiting dilution technique. The ability of ANP (rat, 1-28) to inhibit binding of ¹²⁵I-labeled human α -ANP to these antibodies was almost equipotent to ANP (human, 1-28). However, ANP fragments (human, 7-28) and (18-28) did not inhibit the binding completely. Apparently both 13A1 and 10B1 monoclonal antibodies can specifically recognize the N-terminus of human α -ANP, and may be useful tools to investigate receptor binding of human α -ANP by the antagonizing effect.

IT 88898-17-3, Rat atrial natriuretic peptide 1-28
 RL: BIOL (Biological study)
 (atrioepetin monoclonal antibodies reaction with)
 RN 88898-17-3 HCAPLUS
 CN Atrial natriuretic peptide-28 (rat) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L33 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:591140 HCAPLUS
 DOCUMENT NUMBER: 107:191140
 TITLE: Opioid activities of D-Arg2-substituted tetrapeptides
 AUTHOR(S): Sato, Takumi; Sakurada, Shinobu; Sakurada, Tsukasa; Furuta, Seiichi; Chaki, Kyoji; Kisara, Kensuke; Sasaki, Yusuke; Suzuki, Kenji
 CORPORATE SOURCE: Dep. Pharmacol., Tohoku Coll. Pharm., Sendai, 983, Japan
 SOURCE: Journal of Pharmacology and Experimental Therapeutics (1987), 242(2), 654-9
 CODEN: JPETAB; ISSN: 0022-3565
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The antinociceptive effects and mechanisms of action of H-Tyr-D-Ala-Phe-Gly-OH, H-Tyr-D-Arg-Phe-Gly-OH, and H-Tyr-D-Arg-Phe-sarcosine(Sar)-OH were investigated. The ED₅₀ values of these peptides were 510.0, 8.2, and 2.0 pmol, resp., when administered intracerebroventricularly in the mouse tail-pressure test (dermorphin = 5.7 pmol and morphine = 1.2 nmol). These activities were remarkably potent and relatively long lasting. Their IC₅₀ values were 676.8, 23.1, and 6.6 nM, resp. (dermorphin = 3.75 and morphine = 214.3 nM) in the guinea pig isolated ileum assay, and 138.50, 5.25, and 1.10 nM, resp. (dermorphin = 3.80 and morphine = 28.00 nM) in the radioreceptor assay utilizing [3H]naloxone as the opioid receptor ligand. In the evaluation of their inhibitory effects to enkephalin-degrading enzymes, the IC₅₀ values of H-Tyr-D-Arg-Phe-Gly-OH, H-Tyr-D-Arg-Phe-Sar-OH, and H-Tyr-D-Ala-Phe-Gly-OH were 5.4, 14.5, and >50.0 μ M, resp. (bestatin = 0.1 μ M) against aminopeptidase and 1.18, 1.40, >50.0 μ M, resp. (captopril = 0.38 and D-Phe-2S-,3R-3-amino-2-hydroxy-4-phenylbutanoic acid = >100 μ M) against the cleaving enzymes of enkephalin at its Gly3-Phe4 bond. Evidently, the marked antinociceptive potency of H-Tyr-D-Arg-Phe-Gly-OH and H-Tyr-D-Arg-Phe-Sar-OH is mainly due to high opioid receptor affinity. Their inhibitory effects on enkephalin-degrading enzymes and enzymic stability also greatly contribute to their potent and long-lasting opioid activities. Structure-activity relations of the tetrapeptides are discussed.

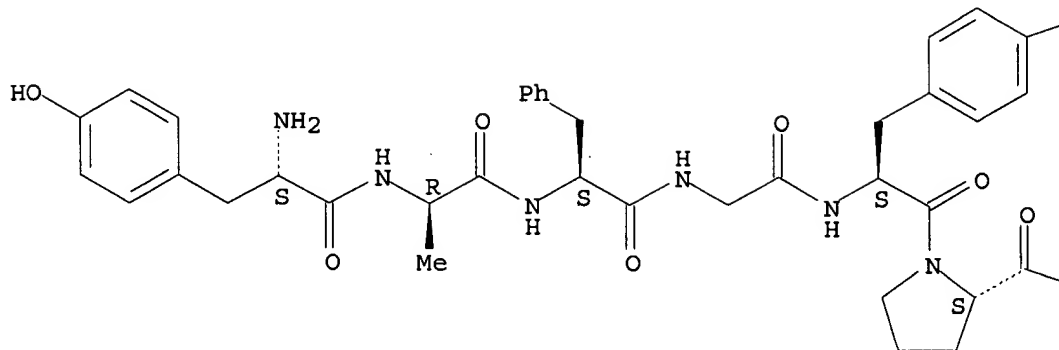
IT 77614-16-5, Dermorphin
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (analgesic activity of, mol. structure in relation to)

09890219

RN 77614-16-5 HCAPLUS
CN Dermorphin (CA INDEX NAME)

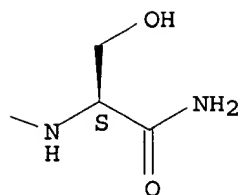
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—OH



L33 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:102638 HCAPLUS

DOCUMENT NUMBER: 104:102638

ORIGINAL REFERENCE NO.: 104:16102h,16103a

TITLE: Dermorphin analogs containing D-kyotorphin:
structure-antinociceptive relationships in mice

AUTHOR(S): Kisara, Kensuke; Sakurada, Shinobu; Sakurada, Tsukasa;
Sasaki, Yusuke; Sato, Takumi; Suzuki, Kenji;
Watanabe, Hiromi

CORPORATE SOURCE: Dep. Pharmacol., Tohoku Coll. Pharm., Sendai, 983,
Japan

SOURCE: British Journal of Pharmacology (1986),
87(1), 183-9

CODEN: BJPCBM; ISSN: 0007-1188

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The antinociceptive effects of synthetic dermorphin [77614-16-5

Updated Search

] and its analogs containing D-arginine (D-Arg) in position 2 injected into the lateral cerebroventricle were examined in conscious mice. Intracerebroventricular (i.c.v.) administration of dermorphin and [D-Arg2]-dermorphin [96425-96-6] produced potent and long-lasting antinociceptive activity as assayed by the tail-pressure test. Dermorphin and [D-Arg2]-dermorphin were 210- and 52-fold more potent than morphine, resp. The antinociceptive effects produced by these heptapeptides were antagonized by a low dose (0.5 mg/kg, i.p.) of the opioid antagonist naloxone. The concentration levels for half-maximal antinociception for [D-Arg2]-dermorphin-(1-6) [100304-61-8], -(1-5) [100304-62-9], and -(1-4) [100304-60-7] were different from that for [D-Arg2]-dermorphin. The shortest fragment, [D-Arg2]-dermorphin-(1-2) [100304-63-0], had little activity, whereas [D-Arg2]-dermorphin-(1-3) [83934-32-1] exhibited activity and was 10-fold more potent than morphine. [D-Arg2]-dermorphin analogs showed almost identical effects when tested on the elec. induced contractions of the guinea pig isolated ileum. Evidently, the presence of the N-terminal tripeptide in the structure of [D-Arg2]-dermorphin is of crucial importance for the manifestation of the full intrinsic opioid-like antinociceptive activity of [D-Arg2]-dermorphin, which is presumably mediated through opioid receptors in the brain.

IT 77614-16-5

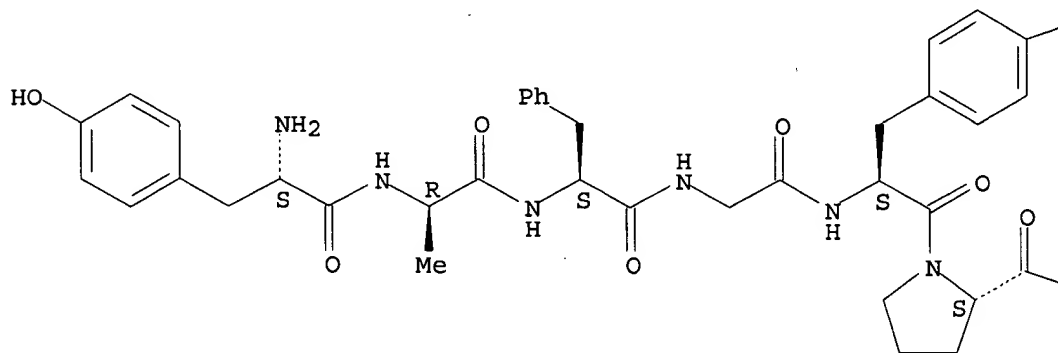
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(analgesic action of, mol. structure in relation to)

RN 77614-16-5 HCAPLUS

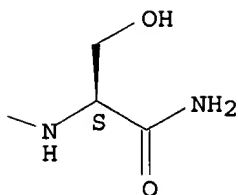
CN Dermorphin (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



—OH



L33 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:34327 HCAPLUS

DOCUMENT NUMBER: 104:34327

ORIGINAL REFERENCE NO.: 104:5652h,5653a

TITLE: Studies on analgesic oligopeptides. III. Synthesis and analgesic activity after subcutaneous administration of [D-Arg2]dermorphin and its N-terminal tetrapeptide analogs

AUTHOR(S): Sasaki, Yusuke; Matsui, Michiko; Fujita, Hiroki; Hosono, Masahiro; Taguchi, Masumi; Suzuki, Kenji; Sakurada, Shinobu; Sato, Takumi; Sakurada, Tsukasa; Kisara, Kensuke

CORPORATE SOURCE: Tohoku Coll. Pharm., Sendai, 983, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1985), 33(4), 1528-36

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 104:34327

AB [D-Arg2]dermorphin (H-Tyr-D-Arg-Phe-Gly-Tyr-Pro-Ser-NH₂) and 19 N-terminal tetrapeptide analogs, e.g., H-Tyr-D-Arg-Phe-Gly-OH (I), were prepared by the conventional solution method and their analgesic activities after s.c. administration to mice were assessed by the tail-pressure test.

[D-Arg2]dermorphin had analgesic potency equal to or slightly greater than that of dermorphin. I showed a potency 4.8 times that of morphine and comparable with that of dermorphin on a molar basis. Several analogs in which Gly₄ was replaced by sarcosine or D-Ala exhibited activity greater than that of I. Replacement of Gly₄ by Pro, Leu, or D-leu resulted in a marked decrease in potency, and replacement of either Phe₃ by other aromatic amino acids or D-Arg₂ by other basic D-amino acids gave analogs with greatly decreased activities. However, one analog whose guanidino functionality on D-Arg₂ was blocked by a nitro group, showed activity one-third that of the parent peptide I. The structure-activity relationship for the tetrapeptide is discussed.

IT 77614-16-5DP, N-terminal tetrapeptide analogs

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and analgesic activity of)

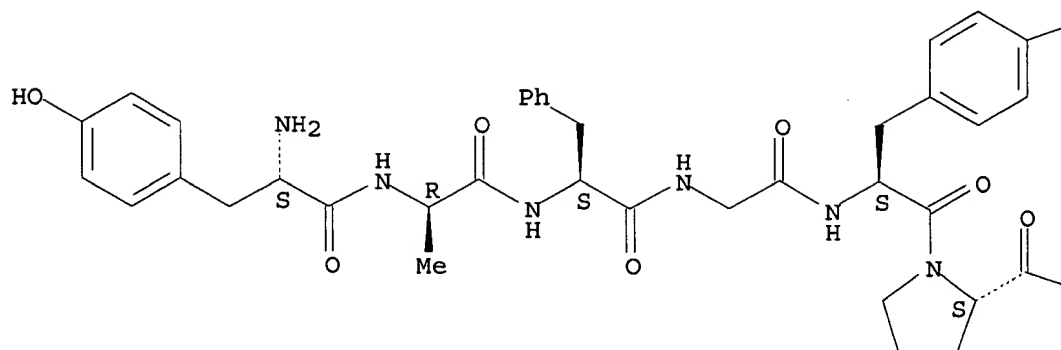
RN 77614-16-5 HCAPLUS

CN Dermorphin (CA INDEX NAME)

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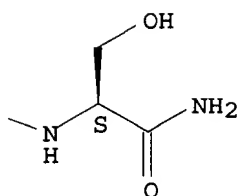
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—OH



L33 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:400760 HCAPLUS

DOCUMENT NUMBER: 103:760

ORIGINAL REFERENCE NO.: 103:143a,146a

TITLE: A comparison of the antinociceptive and behavioral effects of D-Arg-substituted dipeptides and tetrapeptides in mice

AUTHOR(S): Sato, Takumi; Sakurada, Shinobu; Sakurada, Tsukasa; Kisara, Kensuke; Sasaki, Yusuke; Suzuki, Kenji

CORPORATE SOURCE: Dep. Pharmacol., Tohoku Coll. Pharm., Sendai, 983, Japan

SOURCE: Peptides (New York, NY, United States) (1985), 6(1), 35-40

CODEN: PPTDD5; ISSN: 0196-9781

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Intracerebroventricular administration of D-arginine (D-Arg)-substituted dipeptides, H-Tyr-D-Arg-OMe [92758-99-1] and H-Tyr(Et)-D-Arg-OMe

Updated Search

[92759-00-7] and D-Arg2-substituted N-terminal tetrapeptides of dermorphin [77614-16-5], H-Tyr-D-Arg-Phe-Gly-OEt [90549-84-1] and H-Tyr(Et)-D-Arg-Phe-Gly-OEt [92759-01-8] resulted in dose-related and naloxone-reversible antinociceptive effects. Among them, tetrapeptides not only exhibited much more potent and prolonged activities than dipeptides but also were significantly antagonized even by a low dose of naloxone. Spontaneous motor activity was lowered by dipeptides throughout the observation period, which was scarcely antagonized by naloxone. Tetrapeptides elicited locomotor hyperactivity following an initial locomotor suppression. Only the locomotor hyperactivity was significantly antagonized by naloxone. Evidently, tetrapeptides induce their effects via opioid receptors, whereas the effects of dipeptides are nonspecifically involved in various systems.

IT 77614-16-5

RL: BIOL (Biological study)

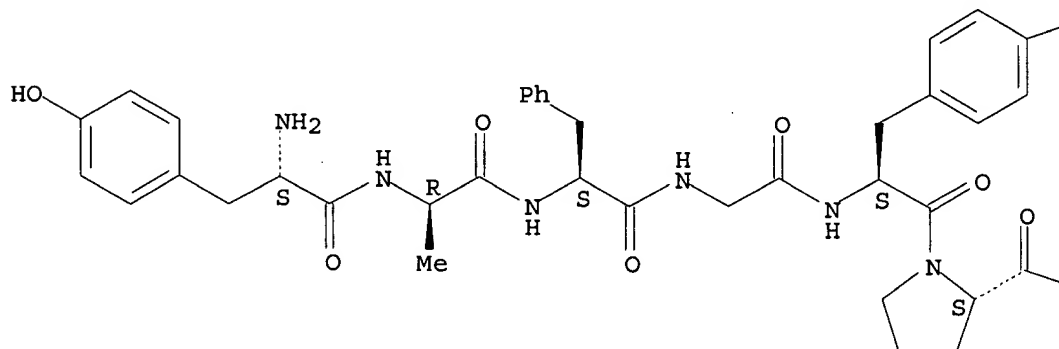
(locomotion-affecting activity of, structure in relation to)

RN 77614-16-5 HCAPLUS

CN Dermorphin (CA INDEX NAME)

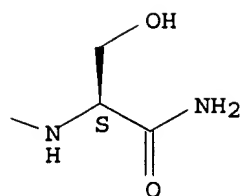
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

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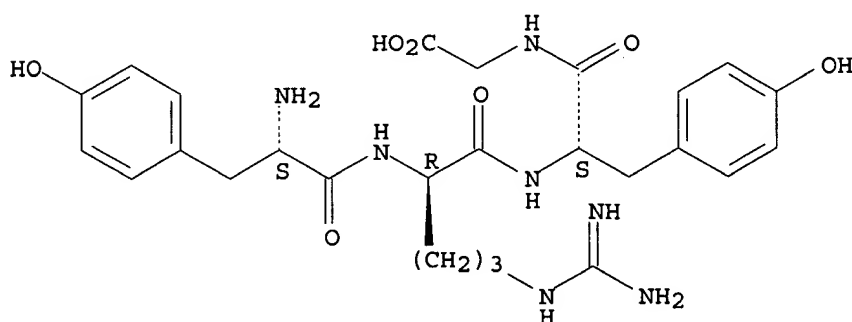
ACCESSION NUMBER: 1985:198185 HCAPLUS
DOCUMENT NUMBER: 102:198185
ORIGINAL REFERENCE NO.: 102:30939a,30942a
TITLE: The analgesic activity of D-Arg2-dermorphin and its
N-terminal tetrapeptide analogs after subcutaneous
administration in mice
AUTHOR(S): Sasaki, Y.; Matsui, M.; Fujita, H.; Hosono, M.;
Taguchi, M.; Suzuki, K.; Sakurada, S.; Sato,
T.; Sakurada, T.; Kisara, K.
CORPORATE SOURCE: Tohoku Coll. Pharm., Sendai, 983, Japan
SOURCE: Neuropeptides (Edinburgh, United Kingdom) (
1985), 5(4-6), 391-4
CODEN: NRPPDD; ISSN: 0143-4179
DOCUMENT TYPE: Journal
LANGUAGE: English

AB 2-D-Arginine-dermorphin (I) [96425-96-6] and 19 N-terminal
tetrapeptide analogs were prepared, and their analgesic activities were
determined by the tail pressure test after s.c. administration in mice. The
stability of a tetrapeptide I analog to enzymic degradation was also examined

I had analgesic potency equal to or slightly greater than that of
dermorphin. In a series of tetrapeptide I analogs, a very pronounced
activity greater than that of morphine was observed for analogs of the
following structure, H-Tyr-D-Arg-Phe-X-OH (X = Gly, sarcosine, and D-Ala)
and their esters. Replacement of the 2-D-arginine residue by
D-nitroarginine, D-homoarginine, or D-lysine decreased the potency,
suggesting that the guanidino group and side chain length of D-arginine
are of great importance for a higher activity. The tetrapeptide
H-Tyr-D-Arg-Phe-Gly-OH was more stable than the parent tetrapeptide
(H-Tyr-D-Ala-Phe-Gly-OH) to cleavage by aminopeptidase M [9054-63-1] and
carboxypeptidase Y [9046-67-7].

IT 96425-89-7
RL: BIOL (Biological study)
(analgesia from, mol. structure in relation to)
RN 96425-89-7 HCAPLUS
CN Glycine, N- [N- (N2-L-tyrosyl-D-arginy)l]-L-tyrosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L33 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1984:584204 HCAPLUS
DOCUMENT NUMBER: 101:184204
ORIGINAL REFERENCE NO.: 101:27729a,27732a
TITLE: Comparison of the antinociceptive effect between D-Arg
containing dipeptides and tetrapeptides in mice

Updated Search

09890219

AUTHOR(S): Sato, T.; Sakurada, S.; Sakurada, T.;
Furuta, S.; Nakata, N.; Kisara, K.; Sasaki, Y.;
Suzuki, K.
CORPORATE SOURCE: Dep. Pharmacol., Tohoku Coll. Pharm., Sendai, 983,
Japan
SOURCE: Neuropeptides (Edinburgh, United Kingdom) (
1984), 4(4), 269-79
CODEN: NRPPDD; ISSN: 0143-4179
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The D-arginine-containing dipeptides, H-Tyr-D-Arg-OMe [92758-99-1] and
H-Tyr(Et)-D-Arg-OMe [92759-00-7], and D-arginine-substituted N-terminal
tetrapeptides of dermorphin, H-Tyr-D-Arg-Phe-Gly-OEt [90549-84-1] and
H-Tyr(Et)-D-Arg-Phe-Gly-OEt [92759-01-8] administered
intracerebroventricularly exhibited dose-dependent antinociceptive
activities in mice as measured by the tail-pressure and phenylbenzoquinone
writhing tests. The effects of these peptides were antagonized by
pretreatment with naloxone, indicating that these effects are produced
through opioid receptors. The tetrapeptides were very potent (half-maximum
ED = 12.5 and 355.0 pmole in the tail-pressure test and 3.1 and 53.0 pmole
in the phenylbenzoquinone writhing test, resp.) much more so and more
prolonged than those of morphine and the dipeptides used. The difference
in peak response times and the degree of antagonism by naloxone indicates
that the dipeptides and tetrapeptides act on different sites in the
central nervous system.

IT 77614-16-5D, analogs

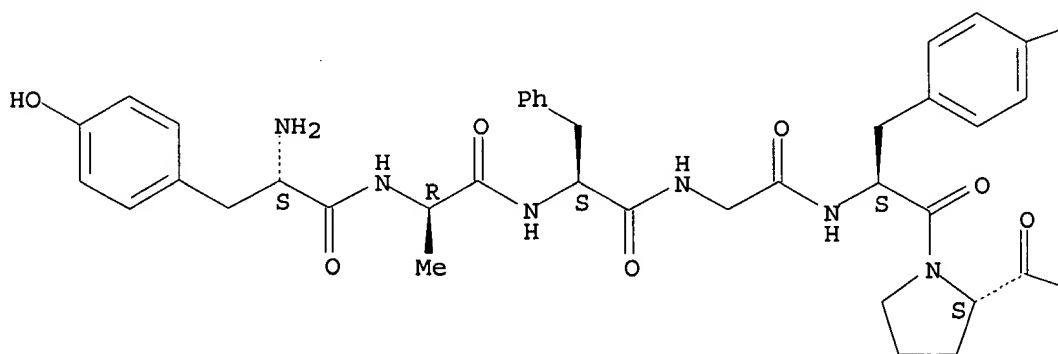
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); BIOL (Biological study)
(analgesic activity of)

RN 77614-16-5 HCAPLUS

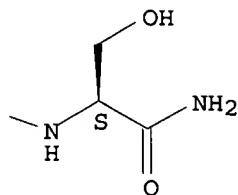
CN Dermorphin (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



—OH



L33 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:400927 HCAPLUS

DOCUMENT NUMBER: 101:927

ORIGINAL REFERENCE NO.: 101:151a,154a

TITLE: D-Arg2-dermorphin tetrapeptide analogs: a potent and long-lasting analgesic activity after subcutaneous administration

AUTHOR(S): Sasaki, Yusuke; Matsui, Michiko; Taguchi, Masumi; Suzuki, Kenji; Sakurada, Shinobu; Sato, Takumi; Sakurada, Tsukasa; Kisara, Kensuke

CORPORATE SOURCE: Tohoku Coll. Pharm., Sendai, 983, Japan

SOURCE: Biochemical and Biophysical Research Communications (1984), 120(1), 214-18

CODEN: BBRCA9; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To determination the pharmacol. properties of [D-Arg2]dermorphin tetrapeptides, 6

tetrapeptide analogs based on the following formulas, H-Tyr-D-Arg-Phe-Gly-OX (X = H, Et, n-propyl), H-Tyr-D-Arg-Phe-Sar-OX (X = H, Me, Et), were prepared All these analogs exhibited highly potent and long-lasting analgesia as compared with that of morphine after s.c. administration into mice. Among analogs tested, H-Tyr-D-Arg-Phe-Sar-OH showed the highest activities, which were 21, 30, and 58 times more active than morphine in the tail pressure, tail flick, and phenylbenzoquinone writhing tests, resp., on a molar basis.

IT 77614-16-5DP, analogs

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and analgesic activity of)

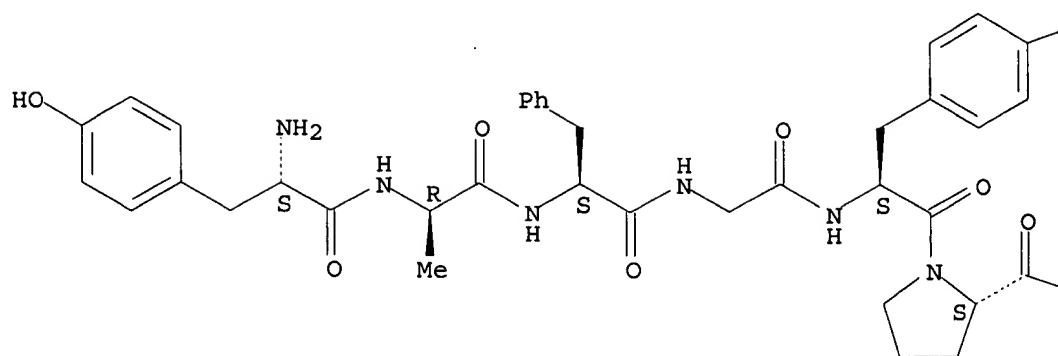
RN 77614-16-5 HCAPLUS

CN Dermorphin (CA INDEX NAME)

Absolute stereochemistry.

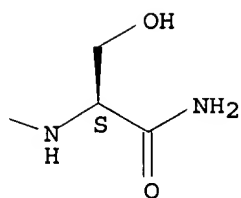
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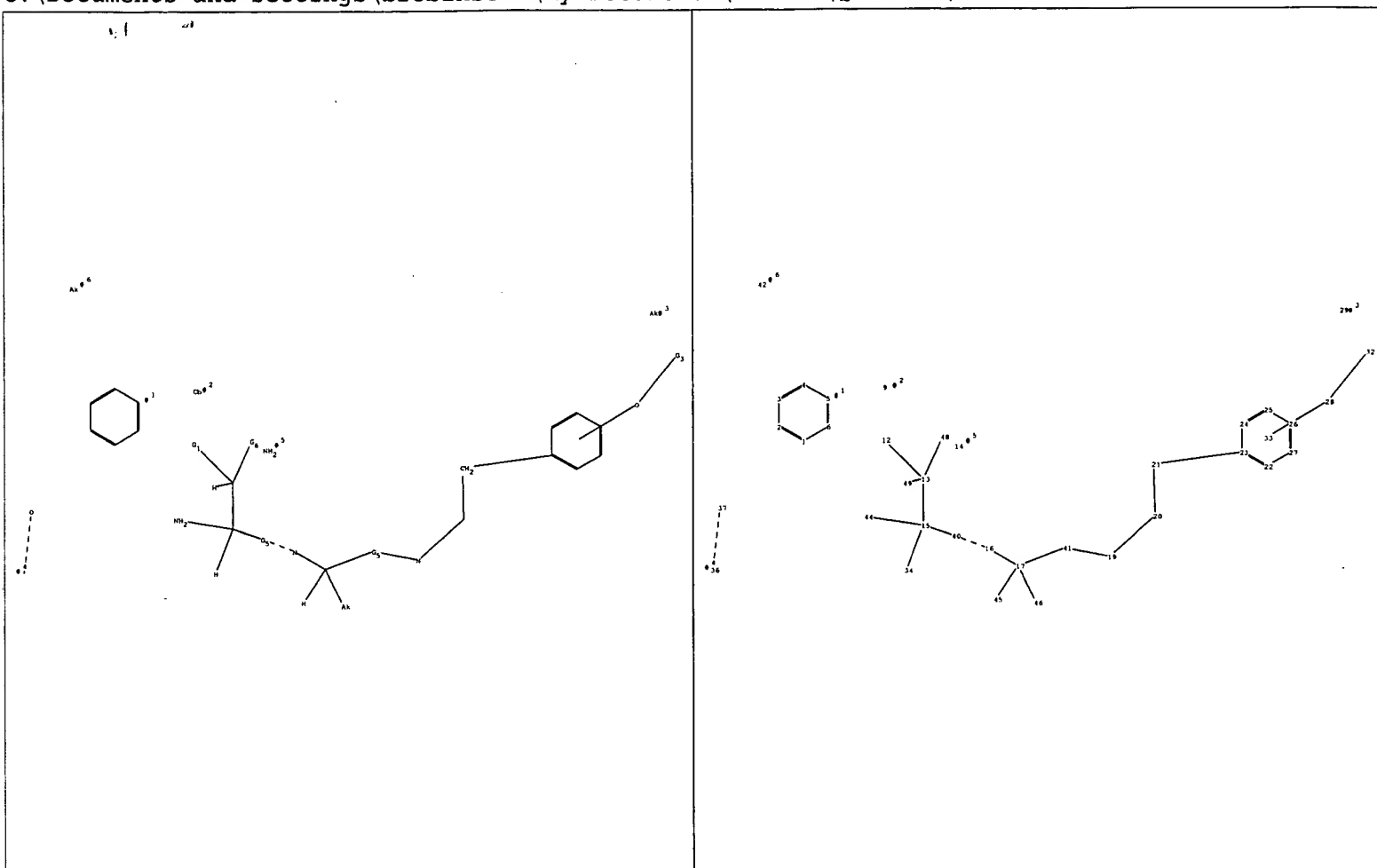


PAGE 1-B

—OH



Updated Search



chain nodes :

9 12 13 14 15 16 17 19 20 21 28 29 32 34 36 37 40 41 42 44 45 46
48 49

ring nodes :

1 2 3 4 5 6 22 23 24 25 26 27

chain bonds :

12-13 13-15 13-48 13-49 15-40 15-34 15-44 16-17 16-40 17-41 17-45 17-46
19-20 19-41 20-21 21-23 28-32 36-37

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 22-23 22-27 23-24 24-25 25-26 26-27

exact/norm bonds :

12-13 13-48 15-40 15-44 16-17 16-40 17-41 17-46 19-20 19-41 28-32 36-37

exact bonds :

13-15 13-49 15-34 17-45 20-21 21-23

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 22-23 22-27 23-24 24-25 25-26 26-27

isolated ring systems :

containing 1 : 22 :

G1:[*1],[*2]

G3:H,[*3]

G5:CH2,[*4]

G6:OH,[*5],[*6]

17

Connectivity :

29:1 E exact RC ring/chain 46:3 X maximum RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 9:Atom 12:CLASS 13:CLASS 14:CLASS
15:CLASS 16:CLASS 17:CLASS 19:CLASS 20:CLASS 21:CLASS 22:Atom 23:Atom 24:Atom
25:Atom 26:Atom 27:Atom 28:CLASS 29:CLASS 32:CLASS 33:Atom 34:CLASS 36:CLASS
37:CLASS 40:CLASS 41:CLASS 42:CLASS 44:CLASS 45:CLASS 46:CLASS 48:CLASS 49:CLASS

Generic attributes :

9:

Saturation : Saturated
Number of Carbon Atoms : less than 7
Type of Ring System : Monocyclic

29:

Type of chain : Linear
Saturation : Saturated
Number of Carbon Atoms : less than 7

42:

Saturation : Saturated
Number of Carbon Atoms : less than 7

46:

Saturation : Saturated

09890219

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| NEWS | 3 | AUG 06 | FSTA enhanced with new thesaurus edition |
| NEWS | 4 | AUG 13 | CA/Capplus enhanced with additional kind codes for granted patents |
| NEWS | 5 | AUG 20 | CA/Capplus enhanced with CAS indexing in pre-1907 records |
| NEWS | 6 | AUG 27 | Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB |
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| NEWS | 8 | AUG 28 | CAS REGISTRY enhanced with additional experimental spectral property data |
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| NEWS | 12 | SEP 17 | CA/Capplus enhanced with printed CA page images from 1967-1998 |
| NEWS | 13 | SEP 17 | CAplus coverage extended to include traditional medicine patents |
| NEWS | 14 | SEP 24 | EMBASE, EMBAL, and LEMBASE reloaded with enhancements |
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| NEWS | 16 | OCT 19 | BEILSTEIN updated with new compounds |
| NEWS | 17 | NOV 15 | Derwent Indian patent publication number format enhanced |
| NEWS | 18 | NOV 19 | WPIX enhanced with XML display format |
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| NEWS | 21 | DEC 14 | BEILSTEIN pricing structure to change |
| NEWS | 22 | DEC 17 | USPATOLD added to additional database clusters |
| NEWS | 23 | DEC 17 | IMSDRUGCONF removed from database clusters and STN |
| NEWS | 24 | DEC 17 | DGENE now includes more than 10 million sequences |
| NEWS | 25 | DEC 17 | TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment |
| NEWS | 26 | DEC 17 | MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary |
| NEWS | 27 | DEC 17 | CA/Capplus enhanced with new custom IPC display formats |
| NEWS | 28 | DEC 17 | STN Viewer enhanced with full-text patent content from USPATOLD |
| NEWS | 29 | JAN 02 | STN pricing information for 2008 now available |
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| NEWS | 31 | JAN 28 | USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats |
| NEWS | 32 | JAN 28 | MARPAT searching enhanced |

Updated Search

09890219

NEWS 33 JAN 28 USGENE now provides USPTO sequence data within 3 days
of publication
NEWS 34 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 35 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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Updated Search

09890219

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L1 STR

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INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
 BATCH **COMPLETE**

PROJECTED ITERATIONS: 157510 TO 168330
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 11:59:07 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 162701 TO ITERATE

100.0% PROCESSED 162701 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.03

L3 0 SEA SSS FUL L1

=>

Uploading C:\Documents and Settings\brobinson1\My
Documents\stnweb\Queries\anfhru.str

L4 STRUCTURE UPLOADED

=> d l4

L4 HAS NO ANSWERS

L4 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l4

SAMPLE SEARCH INITIATED 12:01:35 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 8146 TO ITERATE

24.6% PROCESSED 2000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

Updated Search

09890219

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 157510 TO 168330
PROJECTED ANSWERS: 0 TO 0

L5 0 SEA SSS SAM L4

=> s l4 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 12:01:40 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 162701 TO ITERATE

100.0% PROCESSED 162701 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.03

L6 0 SEA SSS FUL L4

=>

Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\b.str

L7 STRUCTURE UPLOADED

=> d l7

L7 HAS NO ANSWERS
L7 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l7

SAMPLE SEARCH INITIATED 12:03:52 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 34713 TO ITERATE

5.8% PROCESSED 2000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 683123 TO 705397
PROJECTED ANSWERS: 0 TO 0

L8 0 SEA SSS SAM L7

=> s l7 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 12:03:56 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 694747 TO ITERATE

97.5% PROCESSED 677053 ITERATIONS 0 ANSWERS

100.0% PROCESSED 694747 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.29

Updated Search

09890219

L9 0 SEA SSS FUL L7

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\bhvc.str

L10 STRUCTURE UPLOADED

=> s l10
SAMPLE SEARCH INITIATED 12:06:48 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 45091 TO ITERATE

4.4% PROCESSED 2000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 889141 TO 914499
PROJECTED ANSWERS: 0 TO 0

L11 0 SEA SSS SAM L10

=> s l10 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 12:07:00 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 901698 TO ITERATE

95.9% PROCESSED 864765 ITERATIONS 0 ANSWERS
98.8% PROCESSED 891297 ITERATIONS 0 ANSWERS
100.0% PROCESSED 901698 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.33

L12 0 SEA SSS FUL L10

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\bcds.str

L13 STRUCTURE UPLOADED

=> d l13
L13 HAS NO ANSWERS
L13 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l13
SAMPLE SEARCH INITIATED 12:11:40 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 45073 TO ITERATE

4.4% PROCESSED 2000 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

Updated Search

09890219

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 888784 TO 914136
PROJECTED ANSWERS: 21384 TO 25490

L14 50 SEA SSS SAM L13

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\mmopl.str

L15 STRUCTURE UPLOADED

=> s l15
SAMPLE SEARCH INITIATED 12:13:28 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 40041 TO ITERATE

5.0% PROCESSED 2000 ITERATIONS 6 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 788866 TO 812774
PROJECTED ANSWERS: 1745 TO 3059

L16 6 SEA SSS SAM L15

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\bvgf.str

L17 STRUCTURE UPLOADED

=> s l17
SAMPLE SEARCH INITIATED 12:15:39 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 40049 TO ITERATE

5.0% PROCESSED 2000 ITERATIONS 9 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 789024 TO 812936
PROJECTED ANSWERS: 2799 TO 4409

L18 9 SEA SSS SAM L17

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\anfhutyr.str

L19 STRUCTURE UPLOADED

=> s l19
SAMPLE SEARCH INITIATED 12:18:13 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 40049 TO ITERATE

Updated Search

09890219

5.0% PROCESSED 2000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 789024 TO 812936
PROJECTED ANSWERS: 0 TO 0

L20 0 SEA SSS SAM L19

=> s l19 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 12:18:20 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 799284 TO ITERATE

97.7% PROCESSED 780833 ITERATIONS 0 ANSWERS

100.0% PROCESSED 799284 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.27

L21 0 SEA SSS FUL L19

=>
Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\cxdre.str

L22 STRUCTURE UPLOADED

=> s l22
SAMPLE SEARCH INITIATED 12:19:58 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 40049 TO ITERATE

5.0% PROCESSED 2000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 789024 TO 812936
PROJECTED ANSWERS: 0 TO 0

L23 0 SEA SSS SAM L22

=> s l22 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 12:20:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 799284 TO ITERATE

97.6% PROCESSED 780471 ITERATIONS 0 ANSWERS

100.0% PROCESSED 799284 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.28

L24 0 SEA SSS FUL L22

=> d his

Updated Search

09890219

(FILE 'HOME' ENTERED AT 11:56:28 ON 31 JAN 2008)

FILE 'REGISTRY' ENTERED AT 11:56:34 ON 31 JAN 2008

```
L1      STRUCTURE UPLOADED
L2      0 S L1
L3      0 S L1 FULL
L4      STRUCTURE UPLOADED
L5      0 S L4
L6      0 S L4 FULL
L7      STRUCTURE UPLOADED
L8      0 S L7
L9      0 S L7 FULL
L10     STRUCTURE UPLOADED
L11     0 S L10
L12     0 S L10 FULL
L13     STRUCTURE UPLOADED
L14     50 S L13
L15     STRUCTURE UPLOADED
L16     6 S L15
L17     STRUCTURE UPLOADED
L18     9 S L17
L19     STRUCTURE UPLOADED
L20     0 S L19
L21     0 S L19 FULL
L22     STRUCTURE UPLOADED
L23     0 S L22
L24     0 S L22 FULL
```

=> s l18 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 12:20:54 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 799284 TO ITERATE

96.4% PROCESSED 770612 ITERATIONS

2635 ANSWERS

100.0% PROCESSED 799284 ITERATIONS

2744 ANSWERS

SEARCH TIME: 00.00.29

L25 2744 SEA SSS FUL L17

=> file hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

1264.62

1264.83

FILE 'HCAPLUS' ENTERED AT 12:21:31 ON 31 JAN 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Updated Search

09890219

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FILE COVERS 1907 - 31 Jan 2008 VOL 148 ISS 5
FILE LAST UPDATED: 30 Jan 2008 (20080130/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 125

L26 1702 L25

=> s 126 and pd < february 1999

19911764 PD < FEBRUARY 1999

(PD<19990200)

L27 595 L26 AND PD < FEBRUARY 1999

=> s 127 and matsuoka, h?/au

2662 MATSUOKA, H?/AU

L28 0 L27 AND MATSUOKA, H?/AU

=> s 127 and sato, t?/au

24965 SATO, T?/AU

L29 3 L27 AND SATO, T?/AU

=> d 129, ibib abs hitstr, 1-3

L29 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:196672 HCAPLUS

DOCUMENT NUMBER: 112:196672

TITLE: Neutrophil-activating factors and its manufacture with serum-independent human cells

INVENTOR(S): Shionoya, Hiroshi; Koyanagi, Nozomi; Sato, Toshitaka; Kuwata, Manabu; Koide, Jun; Miyoshi, Isao

PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|--------------|
| JP 01161000 | A | 19890623 | JP 1987-318328 | 19871216 <-- |
| PRIORITY APPLN. INFO.: | | | JP 1987-318328 | 19871216 |
| AB Antitumor and antibacterial neutrophil-activating factor (NAS) having a mol. weight of 25,000 and a partially defined amino acid sequence is manufactured by cultivating serum-independent strain A-6 of cell line MT-2 that is established from human umbilical leukocytes. Thus, strain A-6 isolated from cell line MT-2 was cultivated in the serum-free RPMI-1640 medium. The medium was subsequently condensed, chromatographed, gel-filtered in presence of 6 M urea, and purified by the reverse-phased HPLC to obtain NAS. The effect of NAS on antitumor activity of neutrophils against mast cell tumor P815 was demonstrated. | | | | |

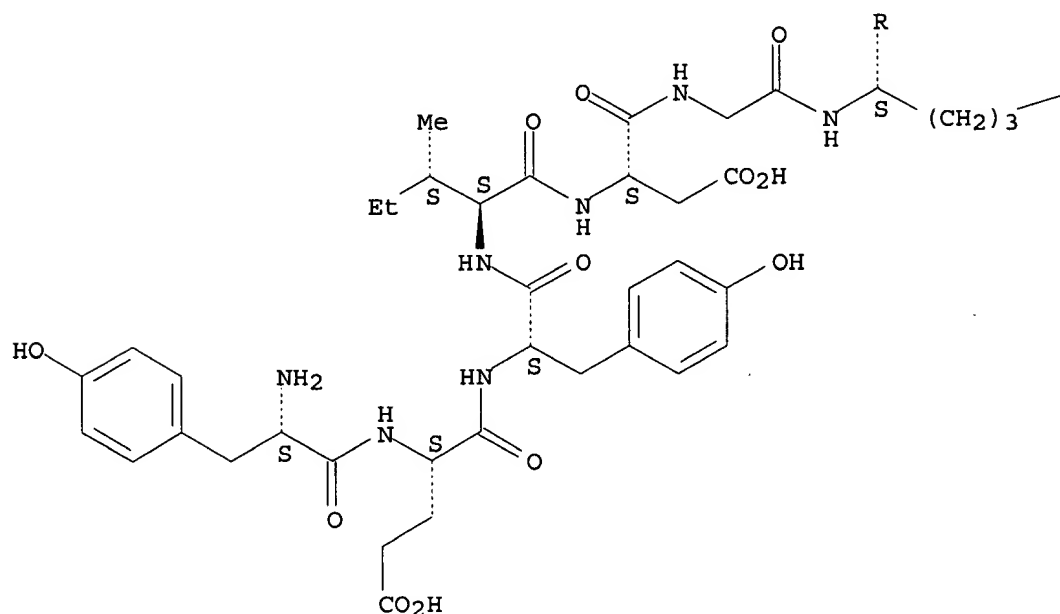
Updated Search

IT 126738-60-1

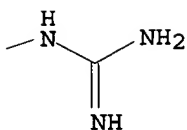
(amino acid sequence in neutrophil-activating factor)

CN L-Serine, N-[N2-[N-[N-[N-[N-(N-L-tyrosyl-L- α -glutamyl)-L-tyrosyl]-L-isoleucyl]-L- α -aspartyl]glycyl]-L-arginyl]- (9CI) (CA INDEX NAME)

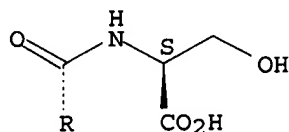
PAGE 1-A



PAGE 1-B



PAGE 2-A



09890219

DOCUMENT NUMBER: 104:34327
ORIGINAL REFERENCE NO.: 104:5652h,5653a
TITLE: Studies on analgesic oligopeptides. III. Synthesis and analgesic activity after subcutaneous administration of [D-Arg2]dermorphin and its N-terminal tetrapeptide analogs
AUTHOR(S): Sasaki, Yusuke; Matsui, Michiko; Fujita, Hiroki; Hosono, Masahiro; Taguchi, Masumi; Suzuki, Kenji; Sakurada, Shinobu; Sato, Takumi; Sakurada, Tsukasa; Kisara, Kensuke
CORPORATE SOURCE: Tohoku Coll. Pharm., Sendai, 983, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1985), 33(4), 1528-36
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 104:34327

AB [D-Arg2]dermorphin (H-Tyr-D-Arg-Phe-Gly-Tyr-Pro-Ser-NH₂) and 19 N-terminal tetrapeptide analogs, e.g., H-Tyr-D-Arg-Phe-Gly-OH (I), were prepared by the conventional solution method and their analgesic activities after s.c. administration to mice were assessed by the tail-pressure test.

[D-Arg2]dermorphin had analgesic potency equal to or slightly greater than that of dermorphin. I showed a potency 4.8 times that of morphine and comparable with that of dermorphin on a molar basis. Several analogs in which Gly₄ was replaced by sarcosine or D-Ala exhibited activity greater than that of I. Replacement of Gly₄ by Pro, Leu, or D-leu resulted in a marked decrease in potency, and replacement of either Phe₃ by other aromatic amino acids or D-Arg₂ by other basic D-amino acids gave analogs with greatly decreased activities. However, one analog whose guanidino functionality on D-Arg₂ was blocked by a nitro group, showed activity one-third that of the parent peptide I. The structure-activity relationship for the tetrapeptide is discussed.

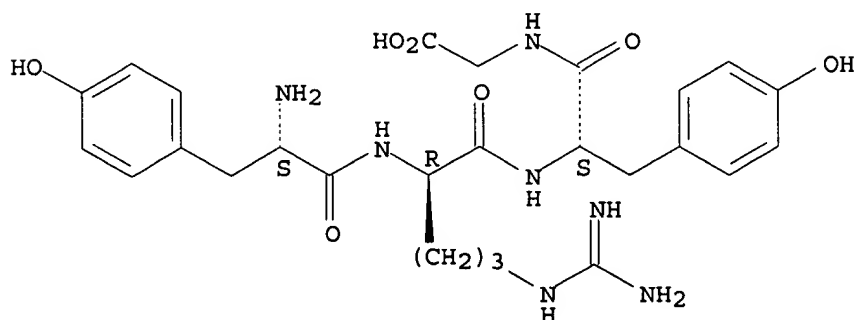
IT 96425-89-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and analgesic activity of)

RN 96425-89-7 HCAPLUS

CN Glycine, N-[N-(N₂-L-tyrosyl-D-arginyl)-L-tyrosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 99592-88-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 99592-88-8 HCAPLUS

Updated Search

09890219

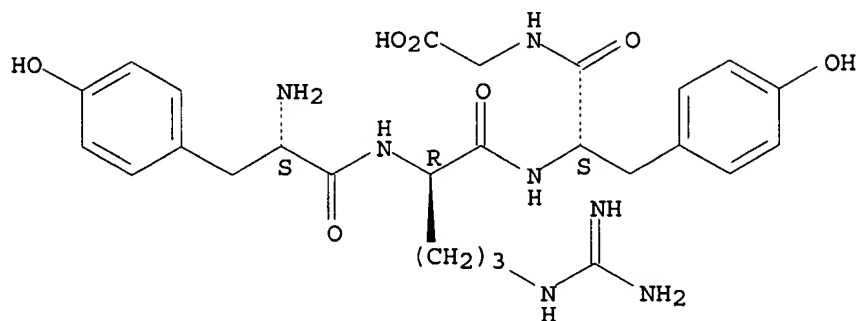
CN Glycine, N-[N-(N2-L-tyrosyl-D-arginyl)-L-tyrosyl]-, diacetate (salt) (9CI)
(CA INDEX NAME)

CM 1

CRN 96425-89-7

CMF C26 H35 N7 O7

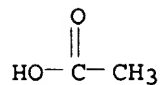
Absolute stereochemistry.



CM 2

CRN 64-19-7

CMF C2 H4 O2



L29 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:198185 HCAPLUS

DOCUMENT NUMBER: 102:198185

ORIGINAL REFERENCE NO.: 102:30939a,30942a

TITLE: The analgesic activity of D-Arg2-dermorphin and its N-terminal tetrapeptide analogs after subcutaneous administration in mice

AUTHOR(S): Sasaki, Y.; Matsui, M.; Fujita, H.; Hosono, M.; Taguchi, M.; Suzuki, K.; Sakurada, S.; Sato, T.; Sakurada, T.; Kisara, K.

CORPORATE SOURCE: Tohoku Coll. Pharm., Sendai, 983, Japan

SOURCE: Neuropeptides (Edinburgh, United Kingdom) (1985), 5(4-6), 391-4

CODEN: NRPPDD; ISSN: 0143-4179

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 2-D-Arginine-dermorphin (I) [96425-96-6] and 19 N-terminal tetrapeptide analogs were prepared, and their analgesic activities were determined by the tail

pressure test after s.c. administration in mice. The stability of a tetrapeptide I analog to enzymic degradation was also examined I had analgesic potency equal to or slightly greater than that of dermorphin. In a series of tetrapeptide I analogs, a very pronounced activity greater than that of

Updated Search

09890219

morphine was observed for analogs of the following structure,
H-Tyr-D-Arg-Phe-X-OH (X = Gly, sarcosine, and D-Ala) and their esters.
Replacement of the 2-D-arginine residue by D-nitroarginine,
D-homoarginine, or D-lysine decreased the potency, suggesting that the
guanidino group and side chain length of D-arginine are of great
importance for a higher activity. The tetrapeptide H-Tyr-D-Arg-Phe-Gly-OH
was more stable than the parent tetrapeptide (H-Tyr-D-Ala-Phe-Gly-OH) to
cleavage by aminopeptidase M [9054-63-1] and carboxypeptidase Y
[9046-67-7].

IT 96425-89-7

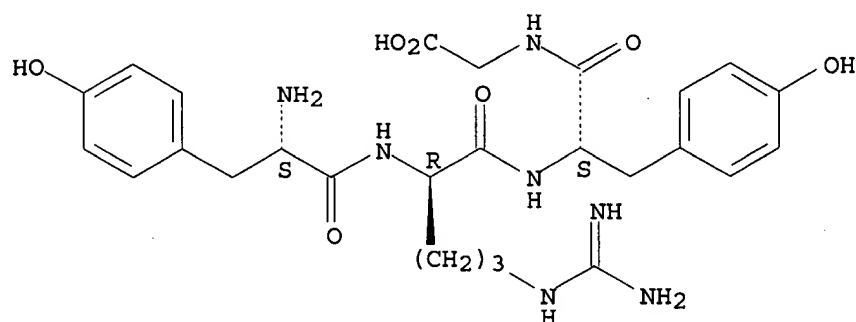
RL: BIOL (Biological study)

(analgesia from, mol. structure in relation to)

RN 96425-89-7 HCAPLUS

CN Glycine, N- [N- (N2-L-tyrosyl-D-arginyl) -L-tyrosyl] - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d his

(FILE 'HOME' ENTERED AT 11:56:28 ON 31 JAN 2008)

FILE 'REGISTRY' ENTERED AT 11:56:34 ON 31 JAN 2008

| | |
|-----|--------------------|
| L1 | STRUCTURE UPLOADED |
| L2 | 0 S L1 |
| L3 | 0 S L1 FULL |
| L4 | STRUCTURE UPLOADED |
| L5 | 0 S L4 |
| L6 | 0 S L4 FULL |
| L7 | STRUCTURE UPLOADED |
| L8 | 0 S L7 |
| L9 | 0 S L7 FULL |
| L10 | STRUCTURE UPLOADED |
| L11 | 0 S L10 |
| L12 | 0 S L10 FULL |
| L13 | STRUCTURE UPLOADED |
| L14 | 50 S L13 |
| L15 | STRUCTURE UPLOADED |
| L16 | 6 S L15 |
| L17 | STRUCTURE UPLOADED |
| L18 | 9 S L17 |
| L19 | STRUCTURE UPLOADED |
| L20 | 0 S L19 |
| L21 | 0 S L19 FULL |
| L22 | STRUCTURE UPLOADED |

Updated Search

09890219

L23 0 S L22
L24 0 S L22 FULL
L25 2744 S L18 FULL

FILE 'HCAPLUS' ENTERED AT 12:21:31 ON 31 JAN 2008

L26 1702 S L25
L27 595 S L26 AND PD < FEBRUARY 1999
L28 0 S L27 AND MATSUOKA, H?/AU
L29 3 S L27 AND SATO, T?/AU

=> s l27 not l29
L30 592 L27 NOT L29

=> s l30 and takahashi, t?/au
21110 TAKAHASHI, T?/AU
L31 0 L30 AND TAKAHASHI, T?/AU

=> s l30 and kim, d?/au
27790 KIM, D?/AU
L32 0 L30 AND KIM, D?/AU

=> s l30 and jung, k?/au
3105 JUNG, K?/AU
L33 0 L30 AND JUNG, K?/AU

=> s l30 and park, c?/au
11504 PARK, C?/AU
L34 0 L30 AND PARK, C?/AU

=> s l26 not l27
L35 1107 L26 NOT L27

=> s l35 and matsuoka, h?/au
2662 MATSUOKA, H?/AU
L36 2 L35 AND MATSUOKA, H?/AU

=> d l36, ibib abs fhitr, 1-2

L36 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:535162 HCAPLUS

DOCUMENT NUMBER: 133:150920

TITLE: Preparation of peptides or analogs containing
substituted phenethylamine moiety as motilin receptor
antagonists

INVENTOR(S): Matsuoka, Hiroharu; Sato, Tsutomu;
Takahashi, Tadakatsu; Kim, Dong Ick; Jung, Kyung Yun;
Park, Chan Hee

PATENT ASSIGNEE(S): Chugai Seiyaku Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 403 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 2000044770 | A1 | 20000803 | WO 2000-JP444 | 20000128 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, | | | | |

Updated Search

09890219

CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2359030 A1 20000803 CA 2000-2359030 20000128

EP 1149843 A1 20011031 EP 2000-901956 20000128

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

HU 2001005204 A2 20020429 HU 2001-5204 20000128

HU 2001005204 A3 20020528

JP 3715202 B2 20051109 JP 2000-596026 20000128

NO 2001003684 A 20010928 NO 2001-3684 20010726

PRIORITY APPLN. INFO.:

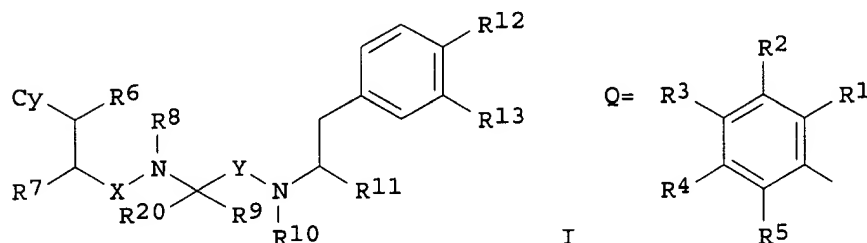
JP 1999-20523 A 19990128

JP 1999-283163 A 19991004

WO 2000-JP444 W 20000128

OTHER SOURCE(S): MARPAT 133:150920

GI



AB Substituted phenethylamine derivs. represented by general formula (I), hydrates of the same, or pharmaceutically acceptable salts thereof [wherein Cy is a group represented by general formula Q, an optionally substituted heterocyclic group, C3-7 cycloalkyl, or phenyl; R1, R1, R1, R1 and R5 are each hydrogen, halogeno, hydroxyl, amino, trifluoromethyl or cyano, at least one of R1-R5 being halogeno, trifluoromethyl or cyano; R6 represents hydrogen, (un)substituted linear or branched C1-3 alkyl, amino, or hydroxy; R8 represents hydrogen, Me, or ethyl; R9 represents (un)substituted linear or branched C1-6 alkyl, C2-6 alkenyl, or C2-6 alkynyl, C3-7 cycloalkyl, or (un)substituted Ph; R20 represents hydrogen, or (un)substituted linear or branched C1-3 alkyl or R9 and R20 together forms C3-7 cycloalkyl; R10 represents hydrogen, (un)substituted linear or branched C1-3 alkyl; R11 represents hydrogen or (un)substituted linear or branched C1-3 alkyl, (un)substituted carbamoyl, or carboxy; R12 represents hydroxy or linear or branched C1-4 alkoxy; R13 represents hydrogen, (un)substituted linear or branched C1-6 alkyl, C2-6 alkenyl, or alkynyl, etc.; X, Y represents carbonyl or CH2; provisos are given.], which exhibit motilin receptor antagonism and being useful as drugs for preventing digestive tract movement or high level of blood motilin. Thus, 3-methyl-2-methylaminobutyric acid 2-(3-tert-butyl-4-hydroxyphenyl)-1-(2-pyridylcarbamoyl)ethylamide (preparation given) was condensed with Boc-Phe(4-F)-OH using CMPI in the presence of Et3N in THF under ice-cooling for 4 h followed by treatment of the product with CF3CO2H in

Updated Search

09890219

CH₂Cl₂ gave 2-((2-amino-3-(4-fluorophenyl)propanoyl)-N-methylamino)-3-methylbutyric acid 2-(3-tert-butyl-4-hydroxyphenyl)-1-(2-pyridylcarbonyl)ethylamide (II). II and N-Et-Phe(4-F)-N-Me-Val-N-Et-Tyr(3-tBu)-NHET showed IC₅₀ of 0.35 and 0.17 nM, resp., for inhibiting binding of 125I-motilin to motilin receptor preparation from mucous membrane of rabbit duodenum.

IT 287205-81-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of peptides or analogs containing substituted phenethylamine

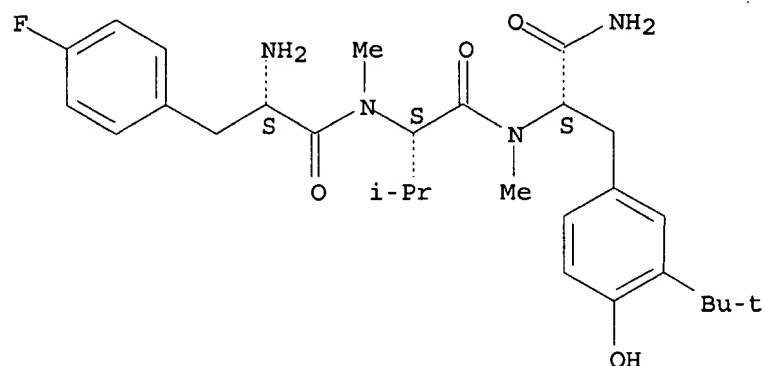
moiety

as motilin receptor antagonists and drugs for preventing digestive tract movement or high level of blood motilin)

RN 287205-81-6 HCAPLUS

CN L-Tyrosinamide, 4-fluoro-L-phenylalanyl-N-methyl-L-valyl-3-(1,1-dimethylethyl)-N α -methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:210207 HCAPLUS

DOCUMENT NUMBER: 132:251427

TITLE: Preparation of peptide derivatives as motilin receptor antagonists

INVENTOR(S) : Matsuoka, Hiroharu; Sato, Tsutomu

PATENT ASSIGNEE(S): Chugai Seiyaku Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|---|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| WO 2000017231 | A1 | 20000330 | WO 1999-JP5215 | 19990924 |
| W: | AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, | | | |

Updated Search

09890219

SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
TW 509699 B 20021111 TW 1999-88116326 19990922
AU 9957592 A1 20000410 AU 1999-57592 19990924
EP 1116726 A1 20010718 EP 1999-944808 19990924
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO
JP 3519367 B2 20040412 JP 2000-574139 19990924
US 6586630 B1 20030701 US 2001-787674 20010321
US 2003176643 A1 20030918 US 2003-356558 20030203
US 6720433 B2 20040413
PRIORITY APPLN. INFO.: JP 1998-307784 A 19980924
WO 1999-JP5215 W 19990924
US 2001-787674 A3 20010321

OTHER SOURCE(S): MARPAT 132:251427

AB H-Phe-Val-substituted Ala-derivs. represented by general formula
R3CH(CHR1R2)-X-NR4CH(R5)-Y-NR6CH(CH2R8)R7 [R1 = (un)substituted Ph,
heterocyclyl, C2-6 linear or branched alkenyl or alkynyl; R2 = H,
(un)substituted C1-3 linear or branched alkyl alkyl, NH2, OH; R3 = H,
(un)substituted C1-3 linear or branched alkyl, (un)substituted NH2, OH; R4
= H, Me, Et; R5 = (un)substituted C1-6 linear or branched alkyl, C3-7
cycloalkyl, (un)substituted Ph; R6 = H, Me, Et; R7 = H, (un)substituted
C1-3 linear or branched alkyl, (un)substituted CONH2; R8 = (un)substituted
C3-9 heterocyclyl, (un)substituted Ph], hydrates, or pharmaceutically
acceptable salts thereof are prepared. Drugs containing these compds. as the
active ingredient for motilin receptor antagonists, inhibiting movement of
digestive tracts, or treating high level of motilin in blood are also
claimed. These peptides are useful for the treatment of irritable bowel
syndrome. Thus, Me-Val-Phe(3-tert-butyl-4-F)-NH2 (preparation given) was
condensed with Boc-Phe-OH using BOP and diisopropylethylamine in CH2Cl2 at
room temperature for 22 h, followed by the treatment with CF3CO2H, to give
H-Phe-N-Me-Val-Phe(3-tert-butyl-4-F)-NH2 (I). I showed IC50 of 3.5 nM for
inhibiting the binding of [125I]motilin to viscous membrane preparation from
rabbit ileum.

IT 262360-77-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of peptide derivs. as motilin receptor antagonists and
inhibitors of digestive tract motility)

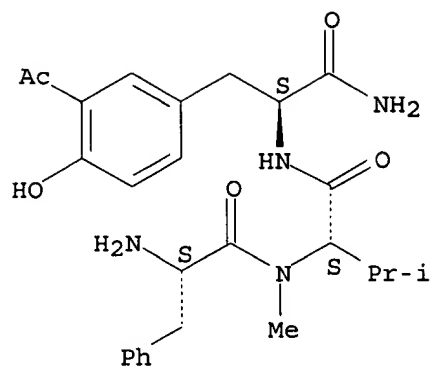
RN 262360-77-0 HCAPLUS

CN L-Tyrosinamide, L-phenylalanyl-N-methyl-L-valyl-3-acetyl- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.

Updated Search

09890219

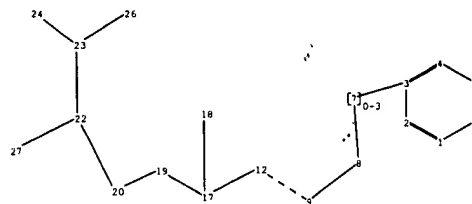
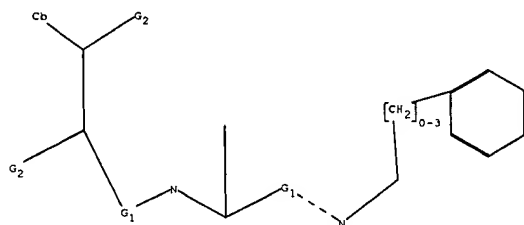


REFERENCE COUNT:

11

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Updated Search



chain nodes :

7 8 9 12 13 14 19 20 22 23 24 26 27

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

17 18

chain bonds :

3-7 7-8 8-9 9-12 12-17 13-14 17-19 19-20 20-22 22-23 22-27 23-24 23-26

ring/chain bonds :

17-18

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

8-9 9-12 12-17 13-14 17-18 17-19 19-20 20-22 22-27 23-26

exact bonds :

3-7 7-8 22-23 23-24

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

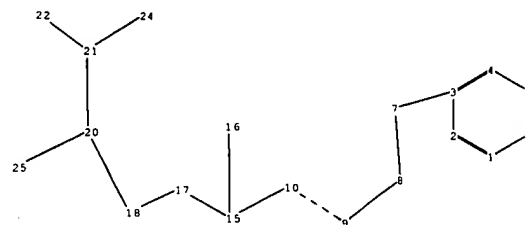
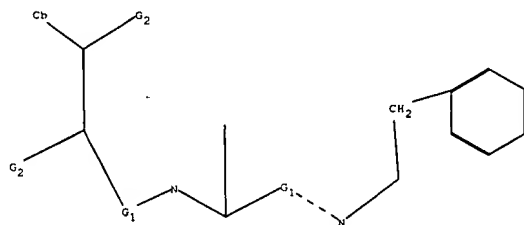
containing 1 :

G1:CH2, [*1]

G2:H,Ak,OH,NH2

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 12:CLASS
13:CLASS 14:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS 22:CLASS 23:CLASS 24:Atom
26:CLASS 27:CLASS



chain nodes :

7 8 9 10 11 12 17 18 20 21 22 24 25

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

15 16

chain bonds :

3-7 7-8 8-9 9-10 10-15 11-12 15-17 17-18 18-20 20-21 20-25 21-22 21-24

ring/chain bonds :

15-16

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

8-9 9-10 10-15 11-12 15-16 15-17 17-18 18-20 20-25 21-24

exact bonds :

3-7 7-8 20-21 21-22

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

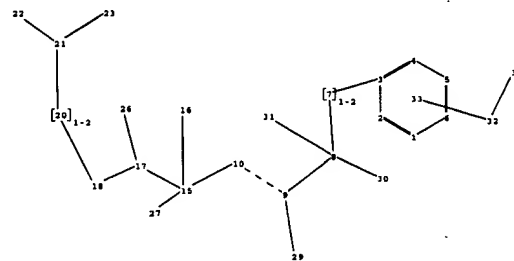
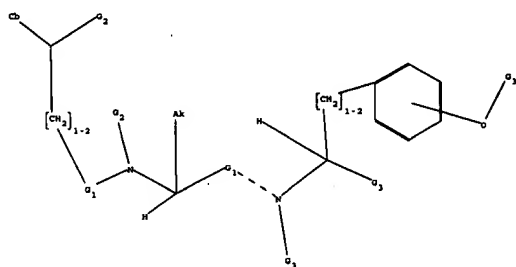
containing 1 :

G1:CH2, [*1]

G2:H,Ak,OH,NH2

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 20:CLASS 21:CLASS 22:Atom
24:CLASS 25:CLASS



chain nodes :

7 8 9 10 11 12 16 17 18 20 21 22 23 26 27 29 30 31 32 34

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

15

chain bonds :

3-7 7-8 8-9 8-30 8-31 9-10 9-29 10-15 11-12 15-17 15-27 17-18 17-26 18-20
20-21 21-22 21-23 32-34

ring/chain bonds :

15-16

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

8-9 8-30 9-10 9-29 10-15 11-12 15-16 15-17 17-18 17-26 18-20 21-23 32-34

exact bonds :

3-7 7-8 8-31 15-27 20-21 21-22

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

containing 1 :

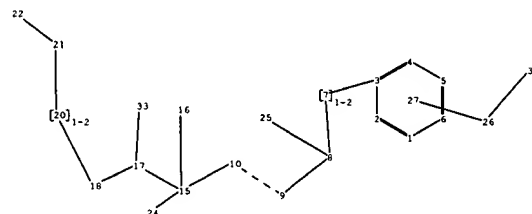
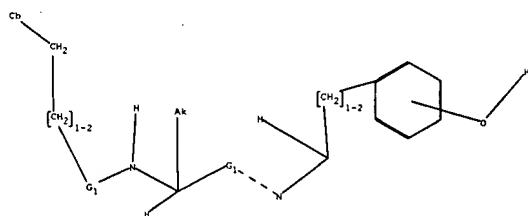
G1:CH2, [*1]

G2:H, CH3, Et

G3:H, Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 20:CLASS 21:CLASS 22:Atom
23:CLASS 26:CLASS 27:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:Atom 34:CLASS



chain nodes :

7 8 9 10 11 12 16 17 18 20 21 22 24 25 26 32 33

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

15

chain bonds :

3-7 7-8 8-9 8-25 9-10 10-15 11-12 15-17 15-24 17-18 17-33 18-20 20-21 21-22
26-32

ring/chain bonds :

15-16

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

8-9 9-10 10-15 11-12 15-16 15-17 17-18 18-20

exact bonds :

3-7 7-8 8-25 15-24 17-33 20-21 21-22 26-32

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

containing 1 :

G1:CH2, [*1]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS

12:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 20:CLASS 21:CLASS 22:Atom
24:CLASS 25:CLASS 26:CLASS 27:Atom 32:CLASS 33:CLASS

7 8 9 10 11 15 16 17 18 19 21 22 23 27 28 29 30

1 2 3 4 5 6

14

3-7 7-8 8-9 8-22 9-29 10-11 14-21 14-16 14-29 16-28 16-30 17-18 17-30 18-19
23-27

14-15

1-2 1-6 2-3 3-4 4-5 5-6

8-9 10-11 14-15 14-16

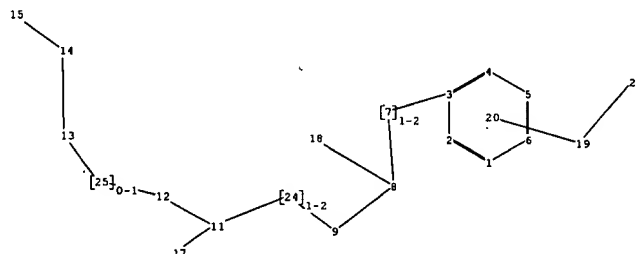
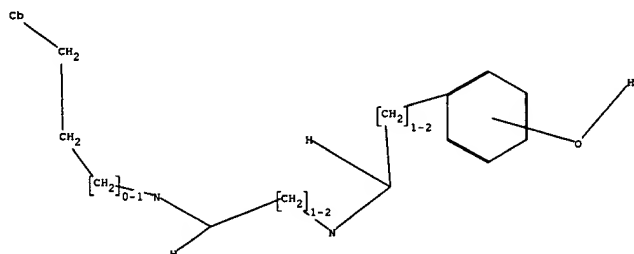
3-7 7-8 8-22 9-29 14-21 14-29 16-28 16-30 17-18 17-30 18-19 23-27

1-2 1-6 2-3 3-4 4-5 5-6

containing 1 :

```
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS
```

14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:Atom 21:CLASS 22:CLASS
23:CLASS 24:Atom 27:CLASS 28:CLASS 29:CLASS 30:CLASS



chain nodes :

7 8 9 12 13 14 15 17 18 19 23 24 25

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

11

chain bonds :

3-7 7-8 8-9 8-18 9-24 11-17 11-24 11-12 12-25 13-14 13-25 14-15 19-23

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

8-9 11-12

exact bonds :

3-7 7-8 8-18 9-24 11-17 11-24 12-25 13-14 13-25 14-15 19-23

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

containing 1 :

G1:CH2

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 11:CLASS
12:CLASS 13:CLASS 14:CLASS 15:Atom 17:CLASS 18:CLASS 19:CLASS 20:Atom 23:CLASS
24:CLASS 25:CLASS

7 8 9 12 13 14 15 17 18 19 23 24 25 30

1 2 3 4 5 6

11

3-7 7-8 8-9 8-18 8-30 9-24 11-17 11-24 11-12 12-25 13-14 13-25 14-15 19-23

1-2 1-6 2-3 3-4 4-5 5-6

8-9 11-12

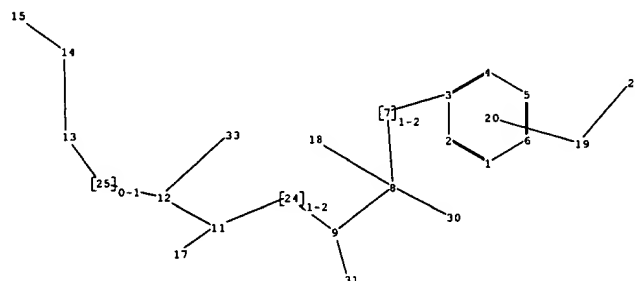
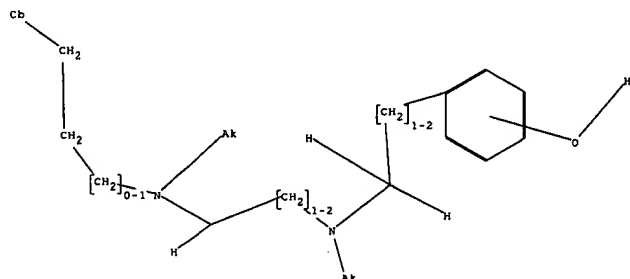
3-7 7-8 8-18 8-30 9-24 11-17 11-24 12-25 13-14 13-25 14-15 19-23

1-2 1-6 2-3 3-4 4-5 5-6

```
containing 1 :
```

Match level :

```
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 11:CLASS
12:CLASS 13:CLASS 14:CLASS 15:Atom 17:CLASS 18:CLASS 19:CLASS 20:Atom 23:CLASS
24:CLASS 25:CLASS 30:CLASS
```



chain nodes :

7 8 9 12 13 14 15 17 18 19 23 24 25 30 31 33

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

11

chain bonds :

3-7 7-8 8-9 8-18 8-30 9-24 9-31 11-17 11-24 11-12 12-25 12-33 13-14 13-25
14-15 19-23

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

8-9 9-31 11-12 12-33

exact bonds :

3-7 7-8 8-18 8-30 9-24 11-17 11-24 12-25 13-14 13-25 14-15 19-23

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

containing 1 :

G1:CH2

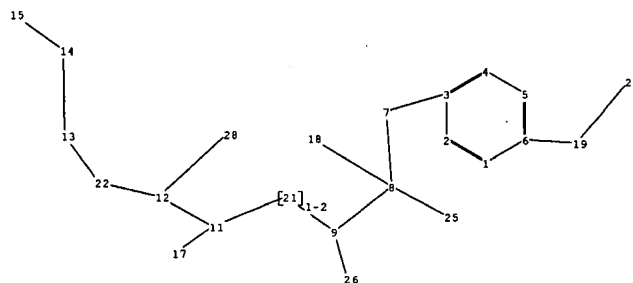
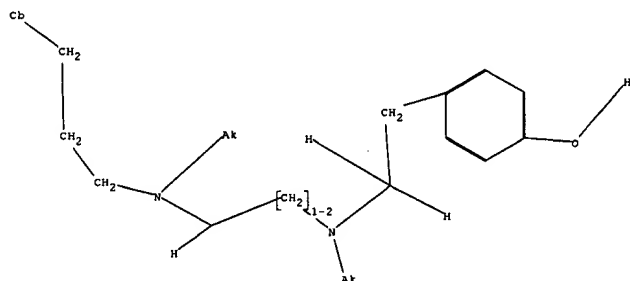
Connectivity :

31:1 E exact RC ring/chain 33:1 E exact RC ring/chain

Match level :

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12:CLASS

; 13:CLASS 14:CLASS 15:Atom 17:CLASS 18:CLASS 19:CLASS 20:Atom 23:CLASS
24:CLASS 25:CLASS 30:CLASS 31:CLASS 33:CLASS



chain nodes :

7 8 9 12 13 14 15 17 18 19 20 21 22 25 26 28

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

11

chain bonds :

3-7 6-19 7-8 8-9 8-18 8-25 9-21 9-26 11-17 11-21 11-12 12-22 12-28 13-14
13-22 14-15 19-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

6-19 8-9 9-26 11-12 12-28

exact bonds :

3-7 7-8 8-18 8-25 9-21 11-17 11-21 12-22 13-14 13-22 14-15 19-20

normalized bonds :

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isolated ring systems :

containing 1 :

G1:CH2

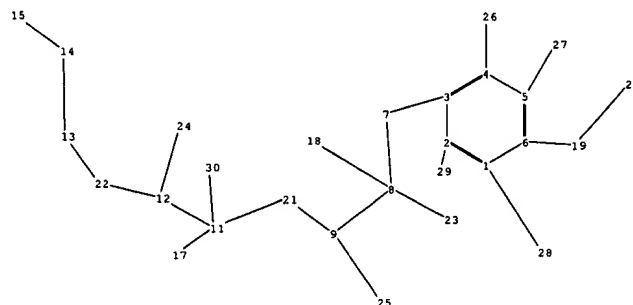
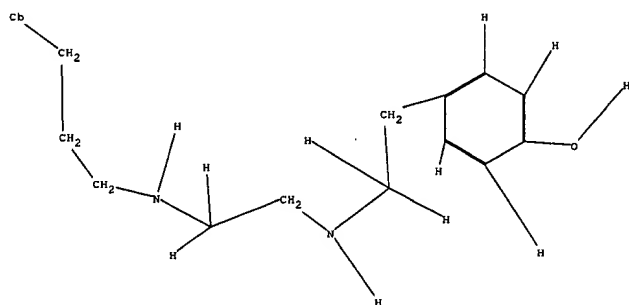
Connectivity :

26:1 E exact RC ring/chain 28:1 E exact RC ring/chain

Match level :

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12:CLASS

• 13:CLASS 14:CLASS 15:Atom 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS
22:CLASS 25:CLASS 26:CLASS 28:CLASS



chain nodes :

7 8 9 12 13 14 15 17 18 19 20 21 22 23 24 25 26 27 28 29 30

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

11

chain bonds :

1-28 2-29 3-7 4-26 5-27 6-19 7-8 8-9 8-18 8-23 9-21 9-25 11-17 11-21 11-12
11-30 12-22 12-24 13-14 13-22 14-15 19-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

6-19 8-9 11-12

exact bonds :

1-28 2-29 3-7 4-26 5-27 7-8 8-18 8-23 9-21 9-25 11-17 11-21 11-30 12-22
12-24 13-14 13-22 14-15 19-20

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

containing 1 :

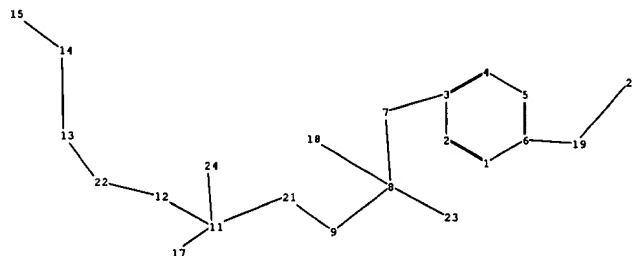
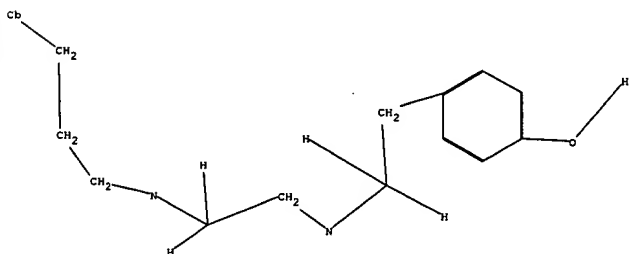
G1:CH2

Connectivity :

15:1 E exact RC ring/chain

Match level :

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12:CLASS 13:CLASS 14:CLASS 15:Atom 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS
22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS



chain nodes :

7 8 9 12 13 14 15 17 18 19 20 21 22 23 24

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

11

chain bonds :

3-7 6-19 7-8 8-9 8-18 8-23 9-21 11-17 11-21 11-12 11-24 12-22 13-14 13-22
14-15 19-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

6-19 8-9 11-12

exact bonds :

3-7 7-8 8-18 8-23 9-21 11-17 11-21 11-24 12-22 13-14 13-22 14-15 19-20

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

containing 1 :

G1:CH2

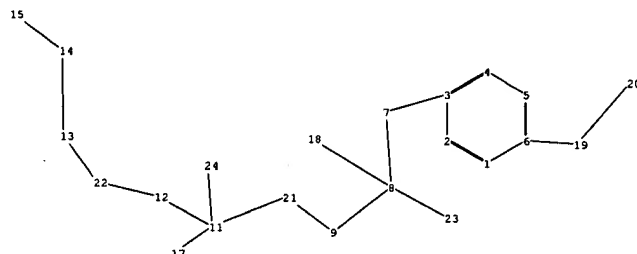
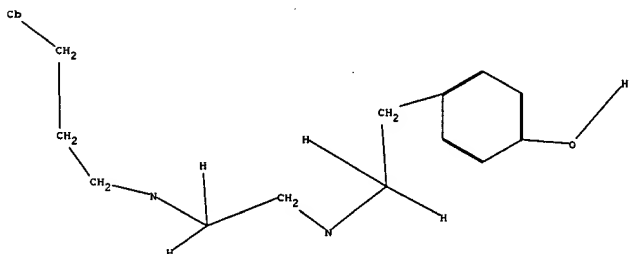
Connectivity :

15:1 E exact RC ring/chain

Match level :

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12:CLASS

. 13:CLASS 14:CLASS 15:Atom 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS
22:CLASS 23:CLASS 24:CLASS



chain nodes :

7 8 9 12 13 14 15 17 18 19 20 21 22 23 24

ring nodes :

1 2 3 4 5 6

ring/chain nodes :

11

chain bonds :

3-7 6-19 7-8 8-9 8-18 8-23 9-21 11-17 11-21 11-12 11-24 12-22 13-14 13-22
14-15 19-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

6-19 8-9 11-12

exact bonds :

3-7 7-8 8-18 8-23 9-21 11-17 11-21 11-24 12-22 13-14 13-22 14-15 19-20

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

containing 1 :

G1:CH2

Connectivity :

15:1 M minimum RC ring/chain

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 11:CLASS
12:CLASS

13:CLASS 14:CLASS 15:Atom 17:CLASS 18:CLASS 19:CLASS 20:CLASS 21:CLASS
22:CLASS 23:CLASS 24:CLASS